A Paleomagnetic Investigation of Jurassic Kirkpatrick Basalt Flows from South Victoria Land, Antarctica

A Thesis

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Eric M. Cherry

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Approved by

Hallan C. Noltimier

Hallan C. Noltimier, Advisor
Department of Geology & Mineralogy

ABSTRACT

Eleven flows of the Jurassic Kirkpatrick Basalt Group were sampled from Brimstone Peak (75.82°S, 158.55°E) for paleomagnetic investigation. Magnetic propreties indicate that the primary magnetization is a TRM with very stable pseudo-single domain behavior. NRM directions do not appear to be strongly affected by the present geomagnetic field. After AF demagnetization, the flow mean poles clustered well with a-95 = 3.6° and k = 163. The VGP determined from these poles is located at 55.5°S, 218.2°W. All magnetizations are upward, which indicates normal polarity.

The Kirkpatrick Basalt Group, and the Ferrar Supergroup of which it is a member, outcrop in Victoria Land and along the central Transantarctic Mountains. These rocks are geochemically associated with other Jurassic tholeiites in Dronning Maud Land. The VGP for Brimstone Peak is consistant with VGP's reported for the Ferrar Supergroup and the tholeiites from Dronning Maud Land. A new VGP for these Jurassic tholeiites, as calculated from six reliable poles, is 53.3°S, 142.0°W with a-95 = 3.6° and k = 163.

ACKNOWLEDGMENTS

A very special thanks to Dr. Hallan Noltimier, my advisor, for his support, understanding and assistance durring the preparation of this report. He has allowed me the freedom to follow my own course of investigation with all of those time consuming side tracks that have improved my understanding of geology and geophysics. Without his patients ans critical review, this report could never have been completed.

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William (Bill) McIntosh, University of Colorado, collected and prepared the paleomagnetic samples. I also thank him for sharing his knowledge of opaque petrology with me.

I am indebted to Bob Bartman, Dave Patzwahl, Kevin Richardson, Kim Stemen, Bob Goodwin and Bob Choate for helpful conversations on paleomagnetism during 1980-81.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF PLATES

INTRODUCTION

This investigation reports a new Virtual Geomagnetic Pole position (VGP) for the Kirkpatrick Basalt Group of the Jurassic Ferrar Supergroup from South Victoria Land, Antarctica.

The Ferrar Supergroup outcrops in Victoria Land and along the Central Transantarctic Mountains. These rocks are associated with other Mesozoic tholeiites from Dronning Maud Land, Tasmania and Southern Africa, and are related to the Early Mesozoic Gondwanian Orogeny (Figure 1).

Prior paleomagnetic investigations of the Ferrar Supergroup have been published by Turnbull (1959), Bull and Irving (1960), Bull et al. (1962), Briden and Oliver (1963), Beck et al. (1968), Beck (1972), Ostrander (1971), and Burmester and Sheriff (1980). Improvements in paleomagnetic technique have been used in this investigation that were not available for the earlier studies.

The purpose of this investigation is twofold. First, it is to add to the body of paleomagnetic data for the Ferrar Supergroup and specifically the Kirkpatrick Basalt Group. Ostrander (1971) published two poles for the Kirkpatrick Basalt, one of which is of questionable validity (Elliot, 1981, pers. comm.). Second, it is to compare the results from Victoria Land with other results for the Ferrar Supergroup and other Jurassic tholeiites from Antarctica.

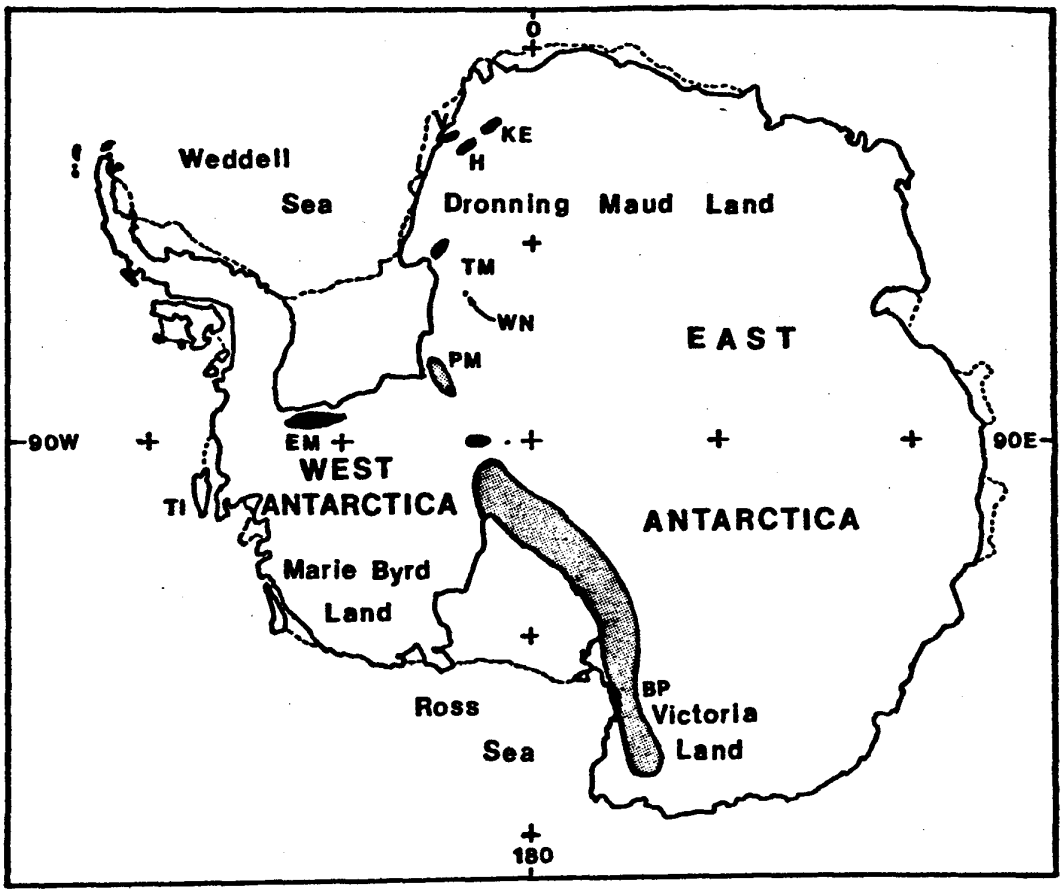

FIGURE 1: This figure illustrates the generalized outcrop area of Jurassic tholeiites in Antarctica. The locations indicated are Brimstone Peak, BP; Pensicola Mountains, PM; Whichway Nunataks, WN; Theron Mountains, TM; and Vestfjella, V. The orientation of the Ellsworth Mountains, EM, is also indicated. After Elliot (1975b).

GEOLOGICAL SETTING AND AGE

The Kirkpatrick Basalt Group represents the extrusive phase of the Ferrar Supergroup (Kyle et al., 1981). The Kirkpatrick Basalts overlie the Late Paleozoic-Early Mesozoic Beacon Supergroup. The Beacon Supergroup consists of nearly flat-lying, non-marine sedimentary rocks of fluvial, glacial and volcanic origin (Elliot, 1975b). Sills and dikes of the Ferrar Dolerite Group intrude the basalt, Beacon Supergroup and underlying basement.

Incremental $^{40}Ar/^{39}Ar$ age determinations for the Ferrar Supergroup indicate that it is about 179 $\pm$ 7 m.y. old (Kyle et al., 1981). A Kirkpatrick basalt sample from Ambalada Peak, which is stratigraphically equivalent to the flows at Brimstone Peak, has a $^{40}Ar/^{39}Ar$ age of 175.8 $\pm$ 3.0 m.y., which is compatible with other Kirkpatrick Basalt Group ages (Kyle et al., 1981). These age determinations also fall within the range of ages for tholeiites from Dronning Maud Land (156-172 m.y., (Løvlie, 1979)), from Tasmania (166-182 m.y. (Schmidt & McDougall, 1976)) and South Africa (144-196 m.y. (Haughton, 1970)).

The Ferrar Supergroup is considered to be situated in a site of back-arc spreading (Elliot, 1974; Kyle et al., 1981; Figure 2). Extensional tectonics, which occurred late in the Early Mesozoic Gondwanian Orogeny, are expressed by a thin crust (Masolov et al., 1981; Adams, 1972) and a volcano-tectonic rift zone (Elliot, 1974). The Ferrar Supergroup occurs along pre-existing zones of weakness, which resulted from Late Precambrian Beardmore and Early Paleozoic Ross Orogenys (Kyle et al., 1981). Ferrar Supergroup rocks are part of a major belt of Jurassic tholeiites, which include the Tasmanian Dolerites, Dronning Maud Land tholeiites and the Karroo tholeiites.

These tholeiites define two petrographic provinces based on isotopic compositions (Fleck et al., 1977; Faure et al., 1979). The two provinces also bear different spatial relationships to the compressive Pacific margin of the Early Mesozoic, the Tasmanian and Ferrar rocks being more proximal, whereas the Dronning Maud Land and Karroo tholeiites were emplaced at a greater distance (Figure 3). The volcano-tectonic rifts were, in some cases, sites of continental separation, although this does not apply to the Ferrar Supergroup. The microplates of West Antarctica were rearranged, with respect to East Antarctica, along this structural feature (Scharon et al., 1969; Cox, 1968; Kyle et al., 1981).

The Kirkpatrick Basalt Group is known in three areas. Elliot (1970) describes a stratigraphic sequence of over 600 m in the Central Transantarctic Mountains. A 380 m sequence of flows is reported by Kyle (1979) at Brimstone Peak in South Victoria Land. The thickest sequence, which contains 1380 m of basalt, is reported by Gair (1967) in North Victoria Land. The basalt flows may show pillow structures, flow banding, columnar structures, and chilled basal margins; and are usually vesicular and amygdaloidal (Kyle, 1981, pers. comm.; McIntosh, 1981, pers. comm.; Skinner and Ricker, 1968). Upper surfaces are weathered and incized with former stream channels, which show considerable relief (Plate 1). Lensoidal sedimentary layers of tuffacous mudstone or calcareous debris are found between some flows. These layers often contain silicified wood, poorly preserved brachiopods and silicified ostracods (Skinner and Ricker, 1968).

In thin section the basalts contain labradorite, augite, pidgeonite, opaque oxides, and varying amounts of glass and quenched

cryptocrystalline material (Elliot, 1970; Skinner and Ricker, 1968). Zeolite assemblages indicate that there may have been at least 1400 m of overlying material removed by Tertiary erosion (Elliot, 1970; Skinner and Ricker, 1968). Kyle (1979) discusses the geochemical uniqueness of the Ferrar Supergroup compared to other tholeiites; and notes their high $^{87}Sr/^{86}Sr$ ratios, and high levels of uranium, thorium, potassium, and light rare earth elements.

Plate 1: Flows exposed at Brimstone Peak showing weathered tops and a large erosion channel. (Photo by P.R. Kyle)

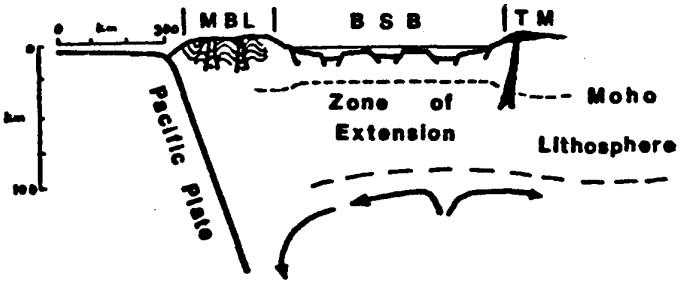

FIGURE 2: A hypothetical cross section from Marie Byrd Land (MBL) through the Byrd Subglacial Basin (BSB) to the Transantarctic Mountains (TM), which may have existed during the Jurassic. After Elliot (1975a).

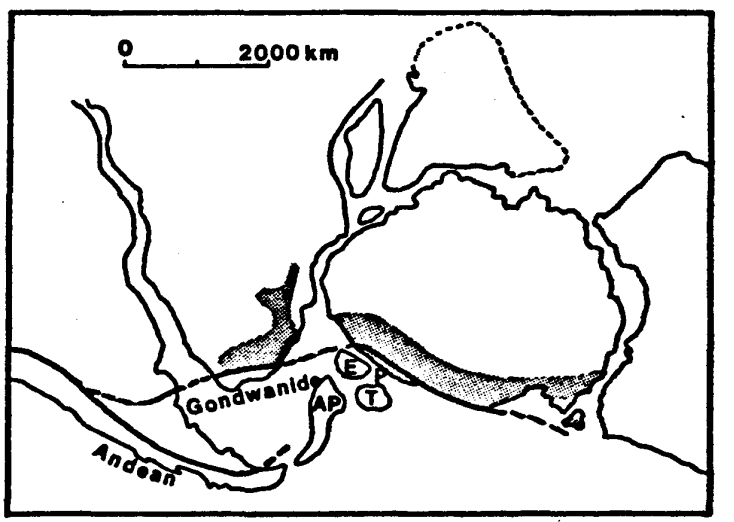

FIGURE 3: A possible Early Mesozoic reconstruction of the Pacific margin of Gondwanaland. The Ellsworth Mountains (E), Antarctic Peninsula (AP), Thurston Island (T), and Pensicola Mountains are indicated in their pre-drift positions. Heavy lines represent the Gondwanide and Andean Orogenies. The shaded area represents the region of Jurassic tholeiitic activity associated with the late stages of the Gondwanian Orogeny. After Cox (1978) and Elliot (1975b).

SAMPLING LOCATION

Brimstone Peak is located on the western margin of the Transantarctic Mountains in South Victoria Land. Its geographical coordinates are 75.82° south latitude and 158.55° east longitude. Brimstone Peak is situated approximately 60 km southwest of Mount Joyce in the Prince Albert Range and is one of the western most exposures found in the area between the David and Mawson Glaciers before reaching the Polar Plateau (Figure 4).

Twenty flows of the Kirkpatrick Basalt Group are exposed at Brimstone Peak (Figure 5). These flows have a stratigraphic thickness of approximately 380 m and are capped by a sill of the Ferrar Dolerite. The base of the lowest flow is not exposed due to ice cover. Individual flows range in thickness from less than 5 m to greater than 70 m (Kyle, 1979).

Oriented samples for paleomagnetic study were collectd from eleven flows. The four sampling localities were on the eastern and southern flanks of Brimstone Peak (Plate 2). Samples from flows one through six were collected from the first three sites. Due to their inaccessibility, flows seven through ten were not sampled, however, these flows were traced to where flows eleven through sixteen could be sampled. In addition to flows seven through ten, flow thirteen and flows seventeen through twenty were not sampled.

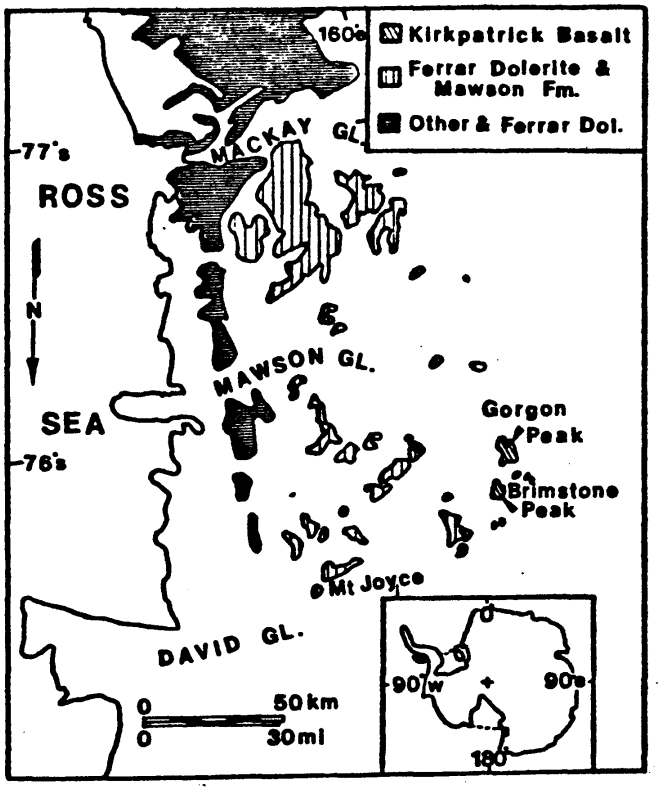

FIGURE 4: Geological map of the region between the Mackay and David Glaciers. After Kyle (1979).

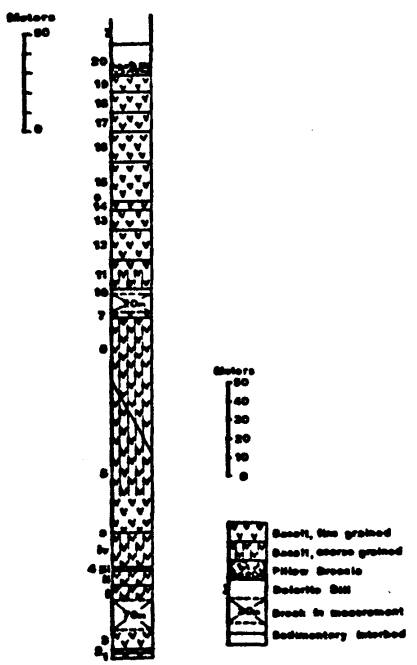

Figure 5: Stratigraphic section at Brimstone Peak. After Kyle (1979).

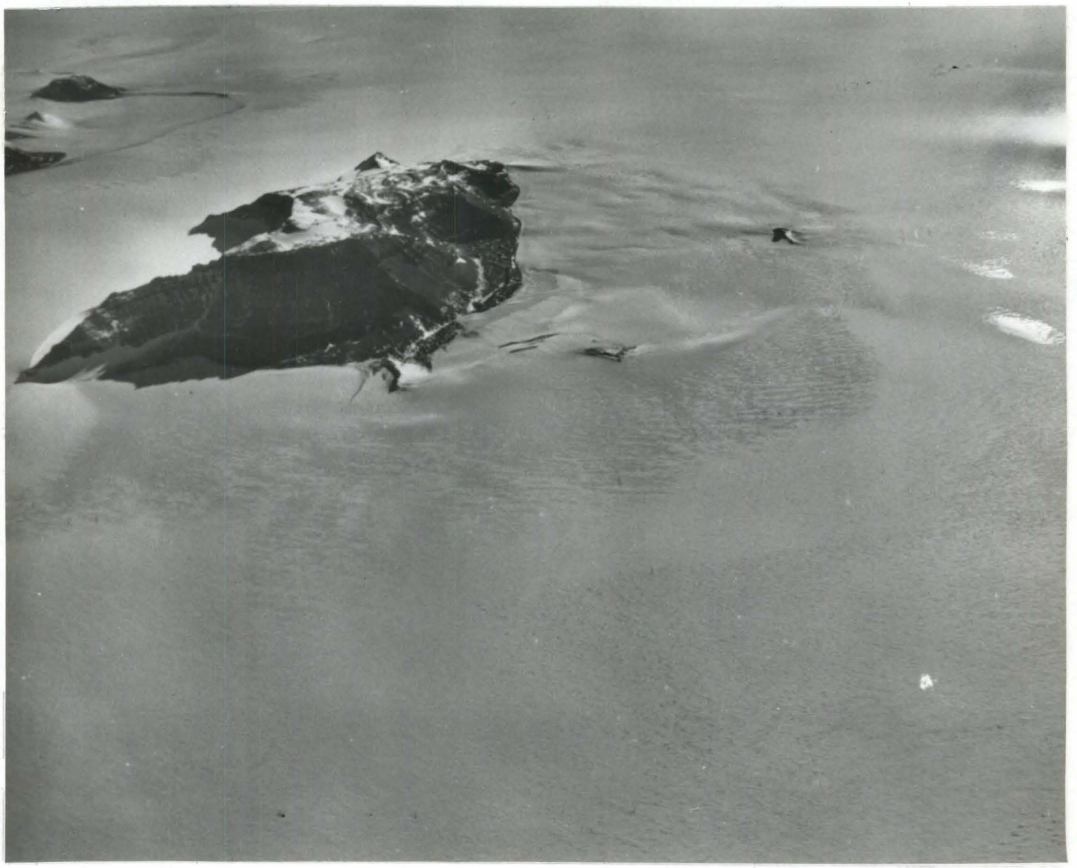

Plate 2: Oblique air photo of Brimstone Peak. View is looking toward the west and the Polar Plateau.

ANALYTICAL TECHNIQUE AND SOURCES OF ERROR

Eleven basalt flows were block-sampled during the 1978-79 field season by William McIntosh. The 29 samples were oriented in the field by either sun compass or magnetic compass and were marked with level lines and an azimuth. In his lab, the samples were reoriented to horizontal and drilled vertically. These cores were labelled to indicate the vertical direction and the azimuth, then sectioned to yield 25 x 23 mm specimen cores (Plate 3). A total of 95 specimen cores were prepared for paleomagnetic analysis with 2 to 14 specimens representing each flow. The paleomagnetic samples were prepared at the University of Colorado, Boulder.

A pilot suite of eleven cores was selected for preliminary paleomagnetic analysis. Each core represents a separate flow with the pilot suite consisting of 12% of the available specimens. The NRM directions were measured by a Schonstedt SSM-1A spinner magnetometer (Plate 4). The specimens were then demagnetized in a Schonstedt GSD-1 AF demagnetizer and remeasured at 100 to 600 oe. The treatment stage yielding the optimum cleaning index (Briden, 1972) in comparison with the demagnetization spectra was used as a guide for the cleaning of the remaining specimens. NRM directions for all of the remaining specimens were measured. The remaining specimens of each flow were then measured at, and 100 oe above and below, the optimum treatment stage indicatd by that flow's pilot specimen. The final paleomagnetic directions were determined from the treatment stage that produced the highest value of Fisher's precision parameter, k (Fisher, 1953), consistent with paleomagnetic stability. Bulk magnetic stability was measured by a Soiltest MS-3 magnetic susceptibility bridge in conjunction with a

Tectronix Type 545 oscilloscope which permits visual balance of the bridge circuit prior to insertion of samples.

A reconnaissance of thin sections was made to determine opaque grain size distributions using a Zeiss petrologic microscope. Magnetic minerals were studied from polished specimens under a Reichert reflecting light microscope.

All analytical studies and reduction of data were performed at The Ohio State University.

Any major dispersion between sample directions for a given flow arise from the orientation process, both in the field and in the lab. William McIntosh (1980, pers. comm.) reports that the azimuth direction may vary by $\pm$ 5° for sun compass oriented samples and $\pm$ 10° for magnetically oriented samples. A $\pm$ 5° variation in azimuth direction may also result from the orientation of the sample in the sample holder. Variations resulting from magnetometer fluctuations are minor. Intensities have a 0.52% standard deviation in magnitude and the directions have an angular standard deviation of 0.35°. Operator error in the reading of the magnetometer is 2% of scale or less.

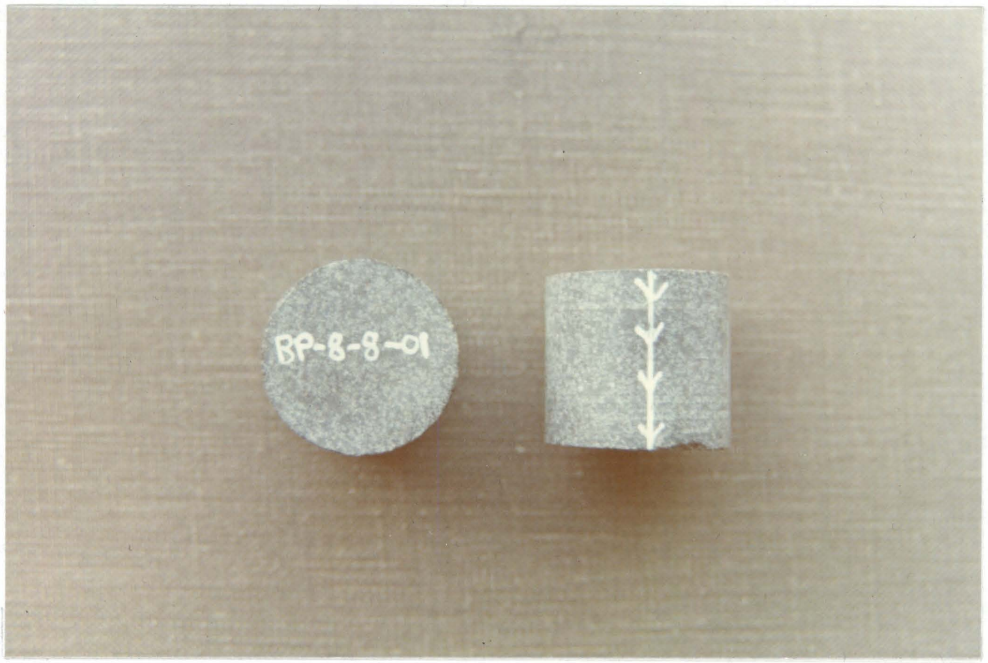

Plate 3: Paleomagnetic specimen

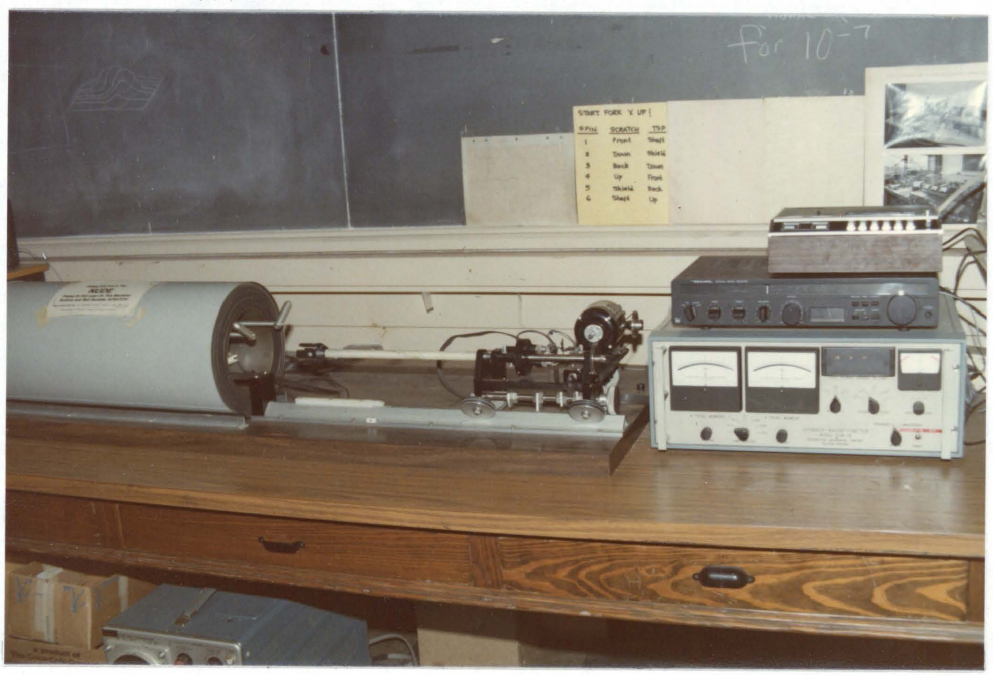

Plate 4a: Schonstedt SSM-1A Spinner Magnetometer

Plate 4b: Schonstedt GDS-1 Specimen Demagnetizer

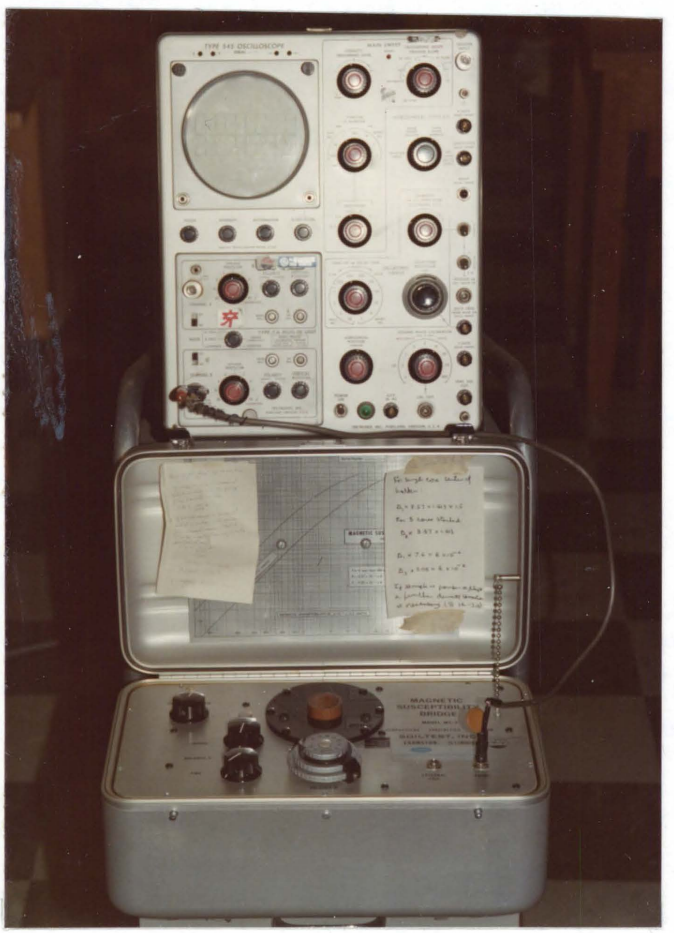

Plate 4c: Soiltest MS-3 Susceptibility Bridge and Tectronix Type 545 Oscilloscope

DETERMINATION OF THE SITE GEOMAGNETIC FIELD FOR 1979

The magnetic inclination and declination at Brimstone Peak for 1979 have been estimated to range from 81.5° up, 161.9°E to 83.2° up, 155.3°E. Magnetic maps of Antarctica for 1975 (Tazima and Haruyama, 1979) were used to determine the magnetic inclinations and declination for 1979 (Table 1). Using the method described by McElhinny (1973), geomagnetic pole positions for 1979 were calculated for these sites. The best fit Geomagnetic South Pole (GSP) for 1979 was determined to be at 59.6°S, 148.5°E with a 1.5° cone of confidence (a-95) and a Fisherian precision parameter, k, of 1122 (Fisher, 1953).

The magnetic inclination and declination at Brimstone Peak for 1979 was determined by two methods (Table 2). The first method used secular variation rates (SV) to extrapolate the 1975 inclinations and declinations to 1979. The second method used spherical trigonometry (ST) as described by Beck (1976), to determine the inclination and declination from the 1979 GSP. The angular difference between the resulting magnetic directions is 1.9°. The angular difference between the geomagnetic poles calculated from these directions is 3.7°, which is less than 20% of the angular distance from Brimstone Peak to the GSP calculated for 1979 from the nine observatories. Tazima and Haruyama (1979) note that transient variations may be remarkable in polar regions and declination and inclination measurements may be disturbed by local magnetic anomalies (Cullington, 1968).

Table 1: This table contains the geographical coordinates, magnetic inclinations and declinations for 1975, magnetic inclinations extrapolated for 1979 from secular variation data, and the calculated Geomagnetic South Pole positions (GSP) for nine magnetic observatories in Antarctica.

Site		1975		1979		GSP 1979	
Lat°	Lon°	Inc°	Dec°	Inc°	Dec°	Lat°	Lon°
-70.77	11.82	-63.30	-27.59	-63.08	-27.52	-60.53	149.81
-69.00	39.58	-65.42	-46.55	-65.12	-46.49	-58.46	149.05
-67.67	45.85	-65.83	-50.36	-65.51	-50.46	-57.85	148.41
-67.60	62.88	-68.88	-62.59	-68.22	-62.65	-56.26	149.52
-66.55	93.02	-76.75	-86.64	-76.53	-84.25	-57.63	146.43
-66.25	110.58	-82.06	-94.00	-81.89	-95.10	-60.51	144.26
-77.85	116.78	-82.10	147.14	-81.90	147.66	-63.07	147.91
-75.52	-26.62	-64.24	-1.55	-64.04	-1.43	-60.24	151.37
-70.32	-2.33	-62.39	-18.06	-62.22	-17.99	-61.71	149.47

Table 2: This table contains the inclinations and declinations calculated for 1979 at Brimstone Peak as determined by the secular variation method (SV) and the spherical trigonometry method from the GSP for 1979 (ST/GSP).

Method	Inc°	Dec°	Angular Diff.	Goemagnetic pole Lat°	Lon°	Angular Diff.
SV	-83.22	155.33	1.9	-63.09	146.23	3.7
ST/GSP	-81.52	161.90		-59.60	148.47	

MAGNETIC PROPERTIES AND MAGNETIC MINERALOGY

A study of the AF demagnetization spectra for the pilot suite reveals two general demagnetization patters (Figure 6). The first approaches a linear relationship between normalized intensities (J/J_o) and the peak AF field. These normalized intensities retain a high proportion of their initial moments with J/J_o averaging 0.660 at 300 oe and 0.388 at 600 oe. This is typical of basalts containing magnetite that is broken up into very small grains by exsolution (Strangway, 1970). The second demagnetization pattern shows a more rapid decrease in normalized intensity up to 300 oe, where J/J_o averages 0.265, after which there is a leveling toward 600 oe, where J/J_o averages 0.089. This is more typical of magnetite grains with larger dimensions (Strangway, 1970). The demagnetization spectra indicate that at least two oxidation state assemblages exist for this sequence of rocks, which, according to Haggerty (1976), may be expected for basalt flows.

Flow average intensities range from 0.79 to 9.36 x 10^{-3} gauss and flow average bulk susceptibilities range from 1.5 to 6.6 x 10^{-4} gauss oe^{-1} (Figure 7). Both intensities and susceptibilities agree with the log-normal distribution (Figure 8), as predicted by Irving et al. (1966). Q_n values, which relate natural remnant magnetization to susceptibility and field strength (Koenigsberger, 1938), range from 2.3 to 66.5 for a magnetic field strength of 0.67 oe at the sampling site (Tazima and Haruyama, 1979). It may be assumed that thermoremnant magnetization (TRM) is the primary component of the NRM with isothermal remnant magnetization (IRM) and secondary chemical remnant magnetization (CRM) contributing only a very minor proportion (Irving, 1964). It then follows that Q_t, which relates TRM to susceptibility and field strength

(Koenigsberger, 1938), would be slightly less than Q_n. According to Stacey (1967) this relationship would indicate that the TRM is primarily the result of pseudo-single domain behavior. All flow directions ranged from paleomagnetically stable to extremely stable as described by Tarling and Symons (1967) and Giddings and McElhinny (1976).

Thin sections and polished sections were studied to determine relative grain size and magnetic mineralogy. Tight control is not possible for the thin section analysis because the stratigraphic position of the paleomagnetic samples cannot be correlated to the known positions of the thin sections (Kyle, 1981, pers. comm.) and petrologic properties may vary considerably within a single flow (Ade-Hall et al., 1968; Haggerty, 1976).

Mean grain sizes ranged from 12.9 to 32.8 microns with the distributions being strongly skewed toward the finer sizes (Figure 9). Seven of the ten flows studied contained dark glass which may contain considerable amounts of very fine magnetite. Five of the flows contained platy or needle-like grains and three flows contained skeletal grains. Small amounts of hematite were found in two flows, which may result from weathering of the basalt and suggests the presence of a minor component of CRM.

The study of the polished sections was inconclusive. Four polished sections were studied under 200X magnification with William McIntosh who tentatively determined that the grains were relatively fresh magnetite. Two additional sections were later studied under 900X magnification with no new conclusions with the exception that large scale exsolution lamelli were found in a 60 micron grain from flow six.

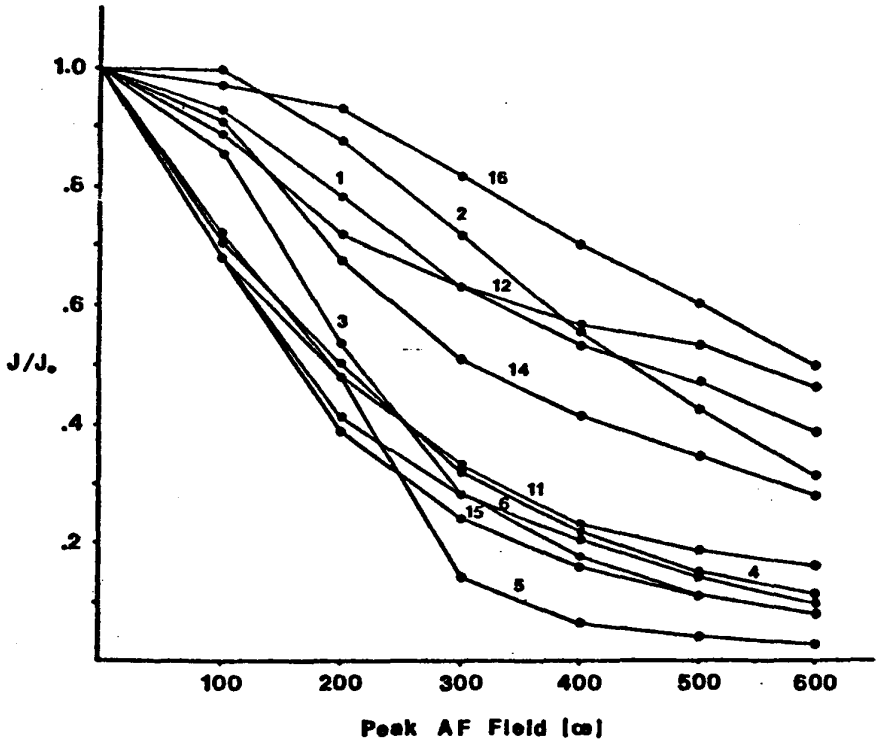

Figure 6: Demagnetization Spectra for Pilot Suite cores indicating the residual normalized intensity (J/J_O) after treatment in successively higher fields.

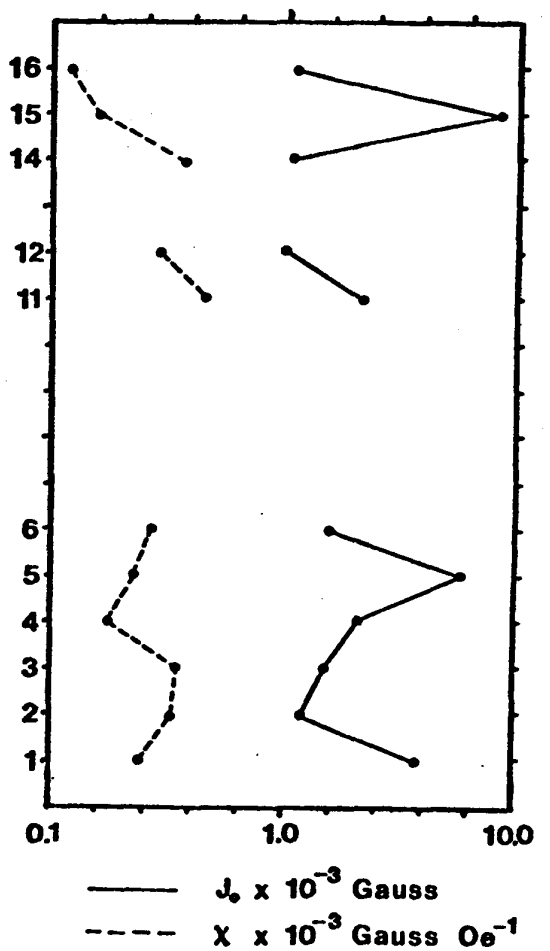

Figure 7: Stratigraphic variation of NRM intensity (J) and susceptibility (X).

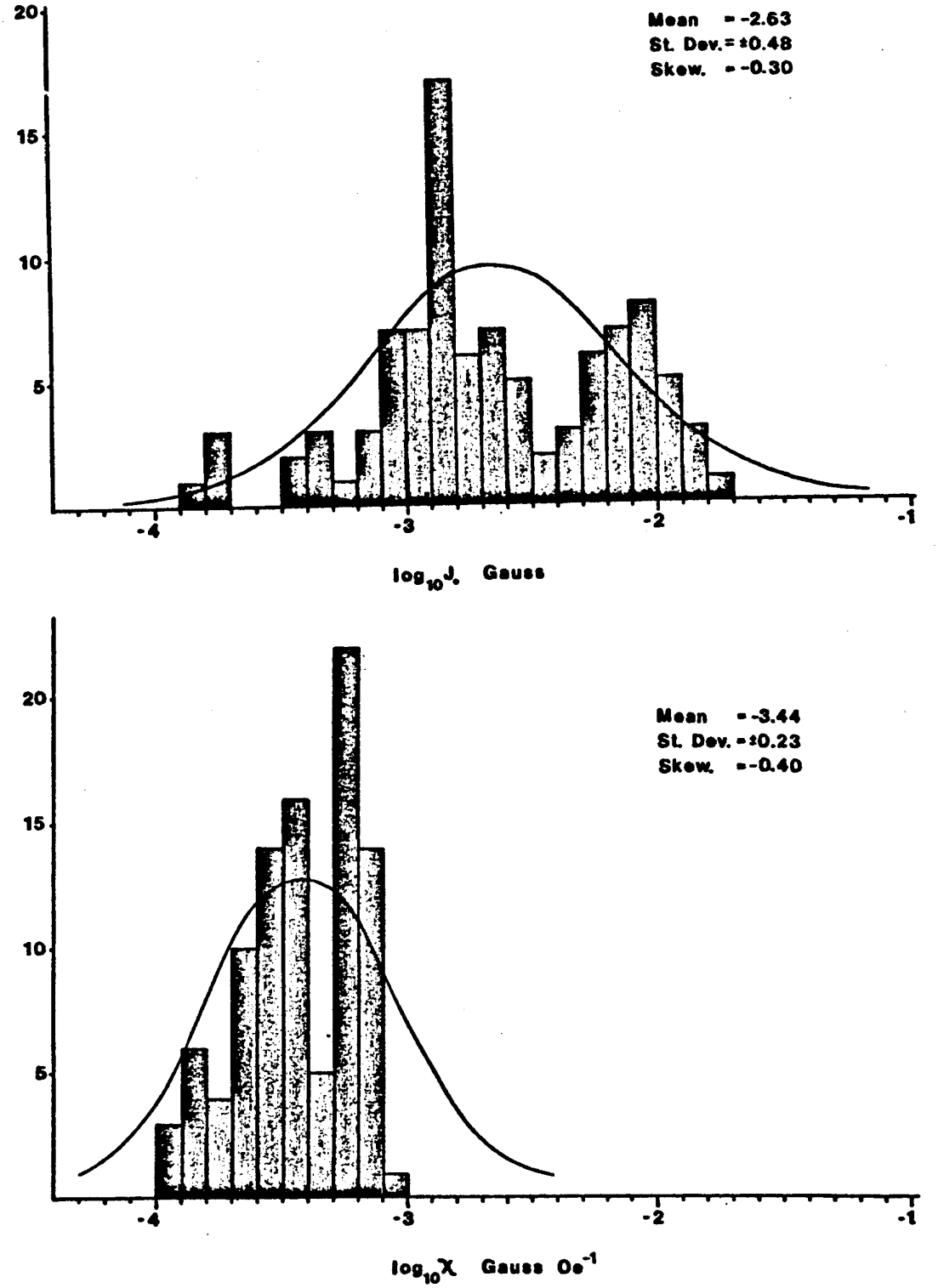

FIGURE 8: Log-normal distributions of NRM intensity and susceptibility. The bell curves represent the distributions as predicted by Irving et al. (1966).

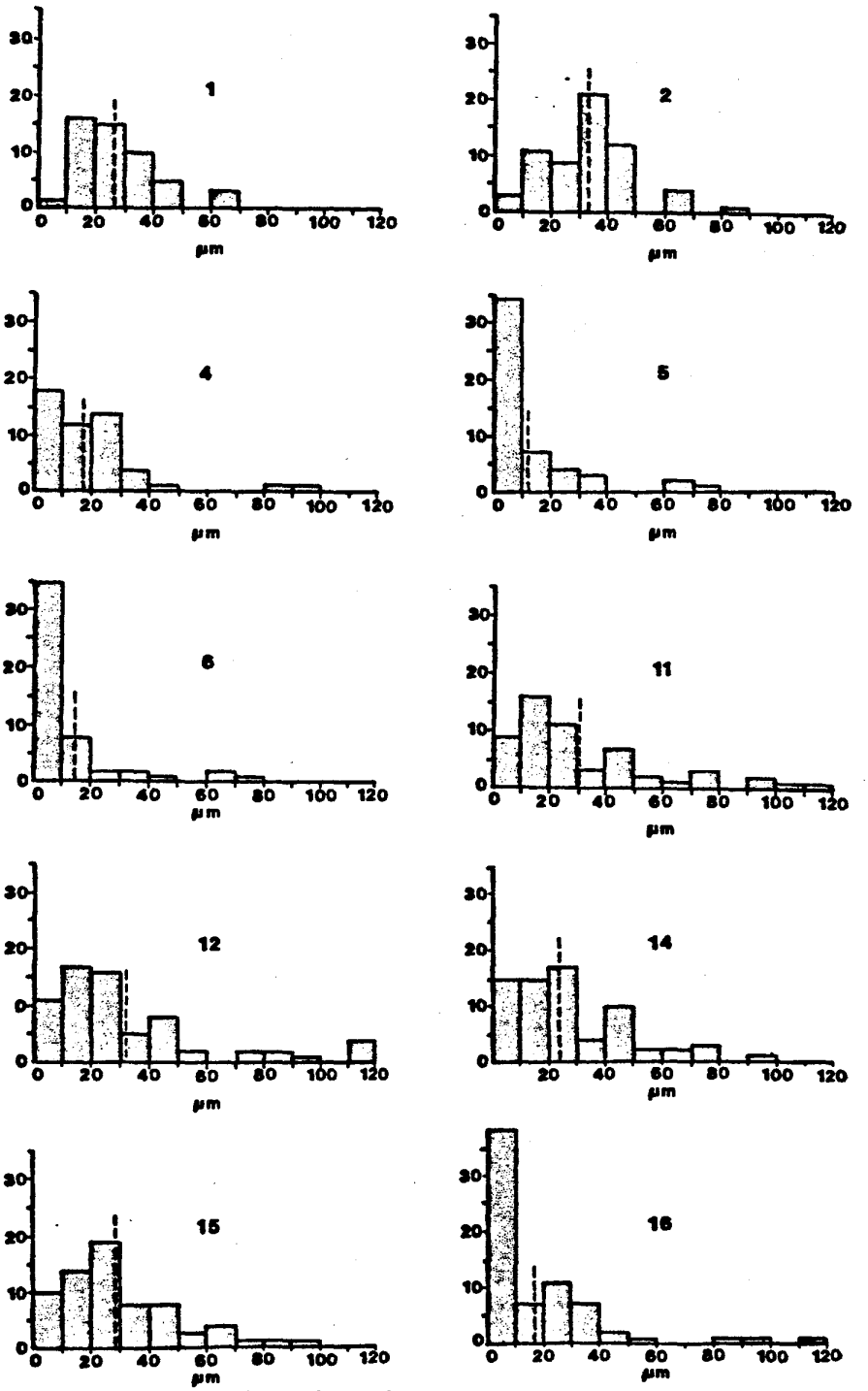

FIGURE 9: Grain size distributions for opaque minerals. Dashed lines indicate the mean grain diameter.

PALEOMAGNETIC RESULTS

Mean NRM intensities for the flows ranged between 9.4×10^{-3} and 7.9×10^{-4} gauss. NRM directions clustered well with ten of the eleven flows having a-95's less than 10°. These directions generally show a greater angular divergence from the present field (D = 155-162°; I = 81-83°up) (Figure 10). All directions are up indicating normal polarity.

Following AF demagnetization, five paleomagnetic directions were rejected from four flow results. The directions were rejected if they showed a divergence from the mean that was greater than 10°. Only one of these directions was removed from the data chosen for the final results. These directions may have resulted from misorientation or misreading by the operator.

All optimum cleaning treatments ranged between 300 and 500 oe peak fields. The directions determined from the optimum cleaning treatments were less than 10° from the NRM directiosn for ten of the eleven flows and less than 5° for four flows. All a-95's were less than 4° for cleaned directions. Paleomagnetic results are listed in Table 3. There have been no structural corrections applied to this data since the flows were horizontal at the sampling locality (Kyle, 1981, pers. comm.).

VGP's calculated from mean flow declinations and inclinations cluster well with an a-95 of 3.6°. South pole longitudes ranged from 191 to 234° east and latitudes ranged from 41 to 71° south (Figure 11). The mean VGP lies at 218°E, 55°S. The VGP's are statistically indistinguishable according to the method described by Watson (1956a).

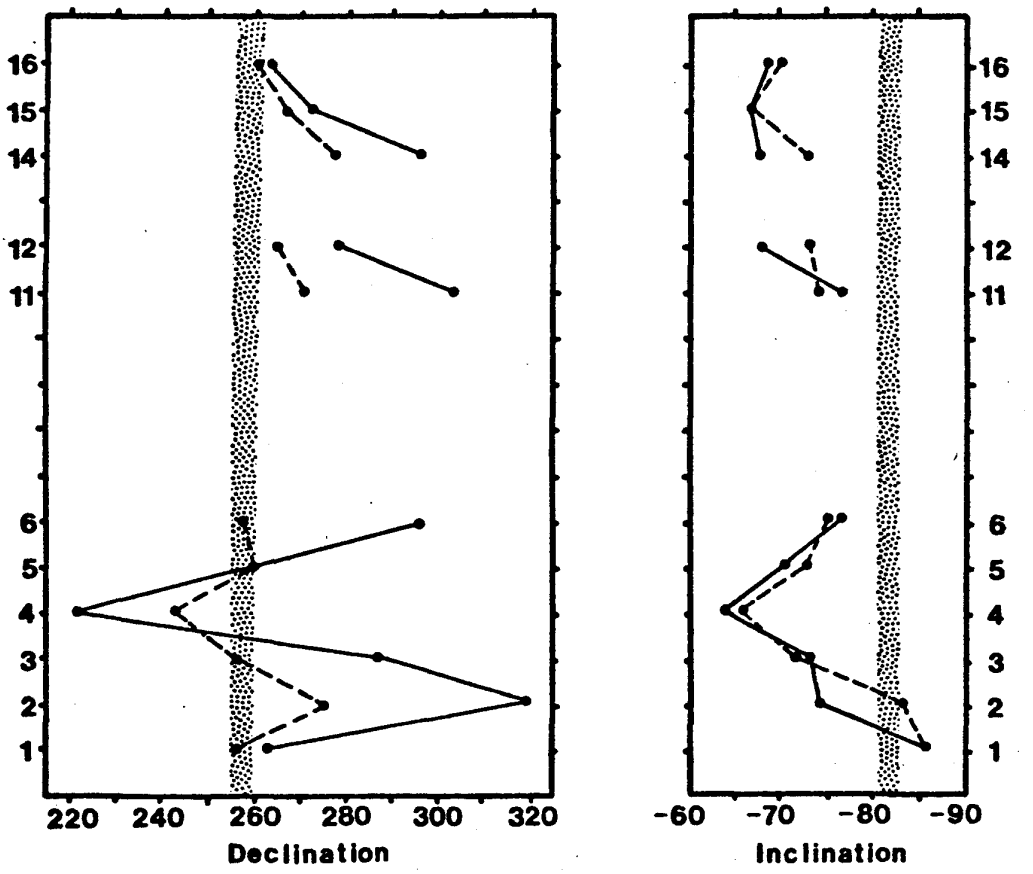

FIGURE 10: Stratigraphic variation of declination and inclination as compared to the inclination and declination calculated for the sampling location for 1979. Solid lines indicate NRM directions and dashed lines indicate cleaned directions.

Table 3: This table presents the NRM and cleaned results for the flows at Brimstone Peak. The parameters are H, the strength of the peak AF cleaning field in OE; N, the number of specimens; R, sum of unit vectors; J is the magnitude of the remanent magnetization, J/J_o is the intensity normalized to the NRM; k^o is Fishers precision parameter; a-95 is the semiangle of the cone of 95% confidence; and -dp and dm are the axes of the ellipse of 95% confidence.

Flow	H	N	R	J $\times 10^{-3}$ Gauss	J/J_o	Dec °E	Inc °up	Plat °S	Plon °W	k	a_{95}	dp	dm
1	NRM	8	7.981	5.71	1.000	263.1	85.5	72.4	189.3	367	2.9	2.6	5.7
	400	8	7.987	3.08	0.544	256.3	84.6	70.3	191.2	552	2.4	4.6	4.7
2	NRM	7	6.904	0.79	1.000	320.4	74.3	69.7	274.5	63	7.7	12.6	13.9
	400	7	6.988	0.45	0.568	275.7	82.8	71.0	207.5	515	2.7	5.0	5.2
3	NRM	6	5.972	1.79	1.000	287.3	73.4	60.5	241.1	178	5.0	8.1	9.0
	500	6	5.986	0.17	0.099	257.0	71.7	51.2	217.4	362	3.5	5.5	6.2
4	NRM	16	15.322	3.02	1.000	222.1	63.7	34.2	193.3	22	8.0	10.1	12.7
	500	16	15.977	0.60	0.327	243.1	66.2	40.8	209.7	656	1.4	1.9	2.4
5	NRM	18	17.899	8.41	1.000	261.3	71.1	51.2	221.5	169	2.7	4.0	4.7
	400	18	17.860	5.00	0.447	260.5	73.4	54.3	218.4	122	3.1	5.0	5.6
6	NRM	13	12.700	1.94	1.000	297.1	76.9	67.8	243.3	40	6.6	11.8	12.3
	300	13	12.973	0.83	0.451	258.3	74.6	55.6	215.3	440	2.0	3.3	3.6
11	NRM	7	6.970	3.36	1.000	294.4	77.1	67.5	240.0	197	4.3	7.5	8.1
	400	7	6.995	0.80	0.249	271.5	74.2	57.9	226.3	1121	1.8	3.0	3.3
12	NRM	7	6.969	1.04	1.000	278.0	68.0	50.9	238.9	196	4.3	6.1	7.3
	300	6	5.987	0.57	0.519	265.5	73.0	54.8	223.0	386	3.4	4.7	5.2
14	NRM	5	4.926	1.24	1.000	269.2	68.5	55.9	256.0	54	10.5	14.9	17.7
	500	5	4.996	0.49	0.396	278.5	72.8	57.5	234.2	931	2.5	4.0	4.5
15	NRM	6	5.983	9.36	1.000	271.8	67.2	48.3	233.9	293	3.9	5.4	6.5
	300	6	5.999	5.30	0.556	267.7	67.3	47.5	230.2	4830	1.0	1.3	1.6
16	NRM	2	1.999	1.34	1.000	262.6	69.2	48.8	224.3	9447	2.6	3.7	4.4
	400	2	2.000	0.95	0.709	261.4	69.7	49.3	222.9	++++	1.4	2.1	2.4
All	NRM	11	10.853	3.31	1.000	272.2	73.8	58.2	230.4	68	5.6	9.0	10.0
	3-500	11	10.939	1.66	0.422	262.3	73.9	55.5	218.2	163	3.6	5.8	6.5

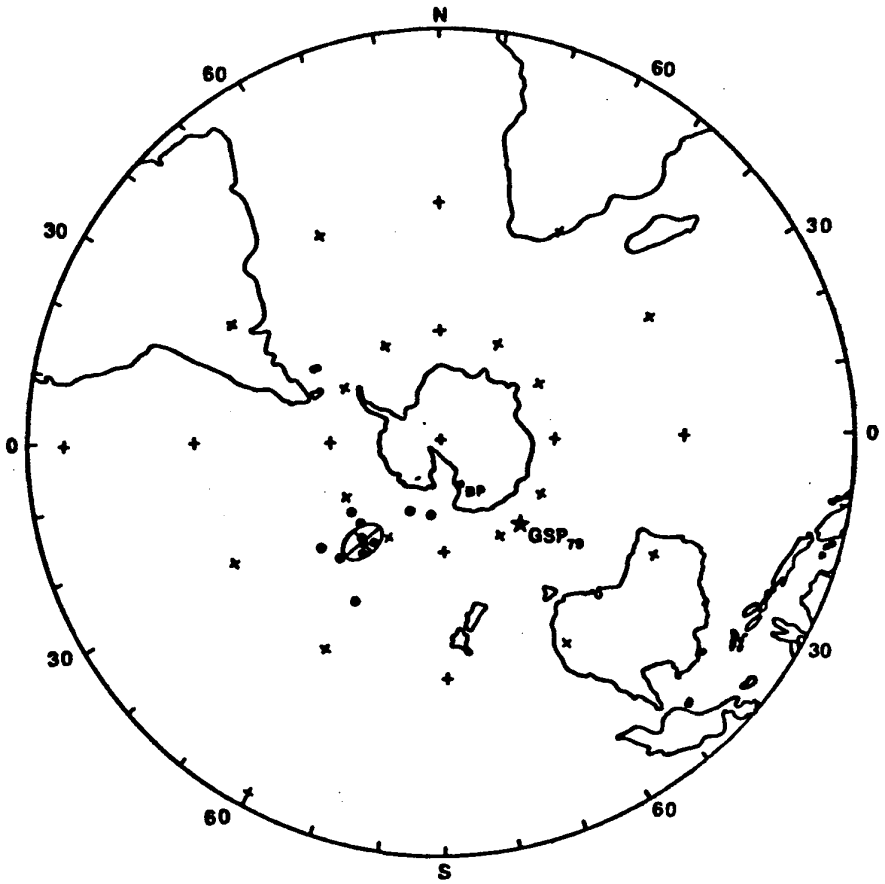

FIGURE 11: This figure shows the flow VGP's from cleaned directions, indicated by • , and the mean VGP calculated from them, which is indicated by the ellipse of 95% confidence. ★GSP represents the sampling location and is the Geomagnetic South Pole calculated for 1979.

COMPARISON WITH OTHER JURASSIC VGP'S FOR ANTARCTICA

The Virtual Geomagnetic Pole (VGP) determined for the Kirkpatrick Basalt at Brimstone Peak shows a good correlation with other Jurassic VGP's for Antarctica (Table 4). The VGP for Brimstone Peak is compared with VGP's for the Ferrar Supergroup and other Jurassic VGP's (Figure 12). The poles for the Ferrar Supergroup include two poles for the Kirkpatrick Basalt Group (Ostrander, 1971), four poles for the Ferrar Dolerite Group (Turnbull, 1959; Bull et al., 1962; Briden and Oliver, 1963; Ostrander, 1971), and three poles for the Forrestal Gabbro Group (Beck et al., 1968; Beck, 1972; Burmester and Sheriff, 1980). Other Jurassic VGP's include two poles for the tholeiites from Dronning Maud Land (Blundell and Stephenson, 1959; Løvlie, 1979) and two poles for the ?Late Jurassic lavas and dikes from the Antarctic Peninsula (Watts, 1981, in press). Several pole positions from Dronning Maud Land and Marie Byrd Land have not been included because the statistics render them irrelevent (Blundell, 1962; Blundell, 1968). It should be noted that the VGP's reported by Turnbull (1959) are NRM directions and may reflect some component of secondary magnetization.

Four of the nine VGP's reported for the Ferrar Supergroup lay within the ellipse of 95% confidence (Irving, 1956) determined for Brimstone Peak. The VGP reported for the Kirkpatrick Basalt flows at Storm Peak (Ostrander, 1971) have a 14.4° angular divergence (Beck, 1976) from the VGP for Brimstone Peak and an 11.3° angular divergence from the VGP for Brimstone Peak. Elliot (1981, pers. comm.) indicates that there is no apparent structural reason for the difference between the VGP's for Mount Falla and Storm Peak, and attributes the discrepancy to misorientation of the samples from Storm Peak. Elliot, therefore,

recommends the rejection of that VGP. An angular divergence of 10° exists between the VGP for Wright and Victoria Valleys (Bull et al., 1962) and the VGP for Brimstone Peak. However, the respective ellipses of 95% confidence overlap by 1° and there is only a 2° difference in paleolongitudes.

The greatest discrepancy exists between the VGP's reported for the Forrestal Gabbro Group (Beck et al., 1968; Beck, 1972; Burmester and Sheriff, 1980) and the VGP for Brimstone Peak. One of these poles (Burmester and Sheriff, 1980) falls within the ellipse of confidence for Brimstone Peak. The others, however, are longitudinally 23° to the east and have a mean angular divergence from the pole for Brimstone Peak of 15°. These very different poles result from the use of structural corrections by Beck (1972) and Beck et al. (1968). Burmester and Sheriff (1980) rejected the need for structural corrections on the basis of recent field observations by Ford et al. (1979), hence their pole is more consistent with other poles reported for the Ferrar Supergroup.

The Pensicola Mountains are considered to be associated with the microplates of West Antarctica (Barker et al., 1977; de Wit, 1977; Cox, 1978; see Figure 3). The Pensicola Mountains have affinities to the Elsworth Mountains (Schopf, 1969; Stump, 1976), which, Watts and Bramall (1980) report, have rotated 90° with respect to East Antarctica. If the pole reported by Burmester and Sheriff (1980) is accepted, then the implication is that the Pensicola Microplate has not rotated with respect to East Antarctica in Post-Jurassic time, as resolvable by current paleomagnetic data. At the present time these relationships are not well understood (Barker et al., 1977; Watts, 1981, in press), however, there is an increasing amount of data that supports the

microplate nature of West Antarctica (Watts and Bramall, 1981; Watts, 1981, in press).

The VGP for Brimstone Peak shows a relatively good correlation to the VGP's for other Jurassic basaltic rocks from Antarctica. One of the two VGP's reported for the tholeiites from Dronning Maud Land falls within the ellipse of 95% confidence (Blundell and Stephenson, 1959) and the other VGP (Løvlie, 1979) has an ellipse that overlaps the ellipse for Brimstone Peak by 3.8°. Two VGP's are reported for ?Jurassic lavas and dikes from the Antarctic Peninsula (Watts, 1981, in press). The significance of these poles is questionable due to age uncertainties and possible remagnetization during the Cenozoic Andean thermal event.

A VGP for the Jurassic tholeiites from Antarctica is calculated from six reliable pole positions to be 53.3°S, 142.0°W; with the Fisher statistics of k = 198, a95 = 4.8°, dp = 4.6° and dm = 6.7°. This VGP excludes pole positions based on NRM directions, questionable ages and questionable tectonic history (i.e., excludes references from Table 4: 1, 2, 3, 8 (Storm Peak only), 9 and 10). A VGP that includes NRM directions and the most recent pole position for the Forrestal Gabbro (Burmester and Sheriff, 1980) plots at 54.8°S, 140.8°W, which is statistically indistinguishable from the first pole.

The Ferrar Supergroup contains rocks of both normal and reversed polarity (Figure 13). Radiometric ages place these rocks in the Graham Interval of normal polarity (McElhinny and Burek, 1971). All results reported for the Kirkpatrick Basalt Group and the Ferrar Dolerite Group indicate normal polarity. Directions reported for the Forrestal Gabbro Group and the tholeiites from Dronning Maud Land indicate both normal and reversed polarity, which indicates that their cooling history must

have overlapped either the Cotswold or Mateke Reversed Zones. This also implies that their respective times of intrusion may have been grouped more closely than their radiometric ages would indicate.

The proximity of the age reported for the basalt at Ambalada Peak (Kyle et al., 1981) to the Cotswold Zone indicates that reversed zones may be present in the flows that were not sampled. These reversed zones do not appear in a continuous section from Gorgon Peak, which is stratigraphically equivalent to Brimstone Peak (Cherry and Noltimier, in preparation).

Table 4: Jurassic Virtual Geomagnetic Poles for Antarctica. This table lists the VGP's for the Ferrar Supergroup and other Jurassic igneous rocks from Antarctica. Headings are the same as for Table 3 with the exception that N is the number of sites reported and Pol refers to the polarity of the results. All VGP longitudes are west with the exception of the basaltic lava from King George Island, which is east. References are as follows: 1, Beck (1972); 2, Beck et al. (1968); 3, Blundell & Stephenson (1959); 4, Briden & Oliver (1963); 5, Bull et al. (1962); 6, Burmester & Sheriff (1980); 7, Løvlie (1979); 8, Ostrander (1971); 9, Turnbull (1959); and 10, Watts (1981, in press).

Location (ref.)	Inc°	Dec°	Plat °S	Plon °W	Pol	N	k	a-95°	dp°	dm°
Kirkpatrick Basalt Group										
Brimstone Peak (this report)	-73.7	263.2	55.5	142.2	N	11	156	3.7	6.0	6.6
Storm Peak (8)	-64.2	252.7	44.1	128.5	N	12	-	6.9	-	-
Mount Falla (8)	-71.7	224.7	53.8	137.4	N	14	-	4.4	-	-
Ferrar Dolerite Group										
Victoria and Wright Valleys (5)	-68	250	45	140	N	46	63	3	4	4
Queen Alexandra Range (8)	-72.0	224.5	54.2	139.8	N	7	-	5.4	-	-
Ferrar Glacier (9)	-75	283	58	142	N	5	52	2.7	4.8	5.1
Beardmore Glacier (4)	-75	244	59	139	N	9	18	11	18	20
Forrestal Gabbro Group										
Duffek Massif (2)	-63.0	61.5	47.5	164.0	N&R	43	15	3.0	-	-
Forrestal Range & Duffek Massif (1)	-69.0	54.0	56.5	168.0	N&R	91	12	4.5	6.5	7.5
Forrestal Range & Duffek Massif (6)	-	-	60	137	N&R	-	-	-	10.5	11.3
Dronning Maud Land Tholeiites										
Vestfjella (7)	-58.9	31.6	52.8	153.2	N&R	25	46	4.3	4.8	6.4
Theron Mts. and Whichway Nunataks (3)	-76	255	54	136	N&R	7	34	12	17	17
Antarctic Peninsula										
King George Is. Basaltic Dike (10)	-59.0	29.1	56	172 E	-	6	372	3.5	3.9	5.2
King George Is. Basaltic Lava (10)	-65.4	55.7	56	148	-	8	100	5.6	7.4	9.1

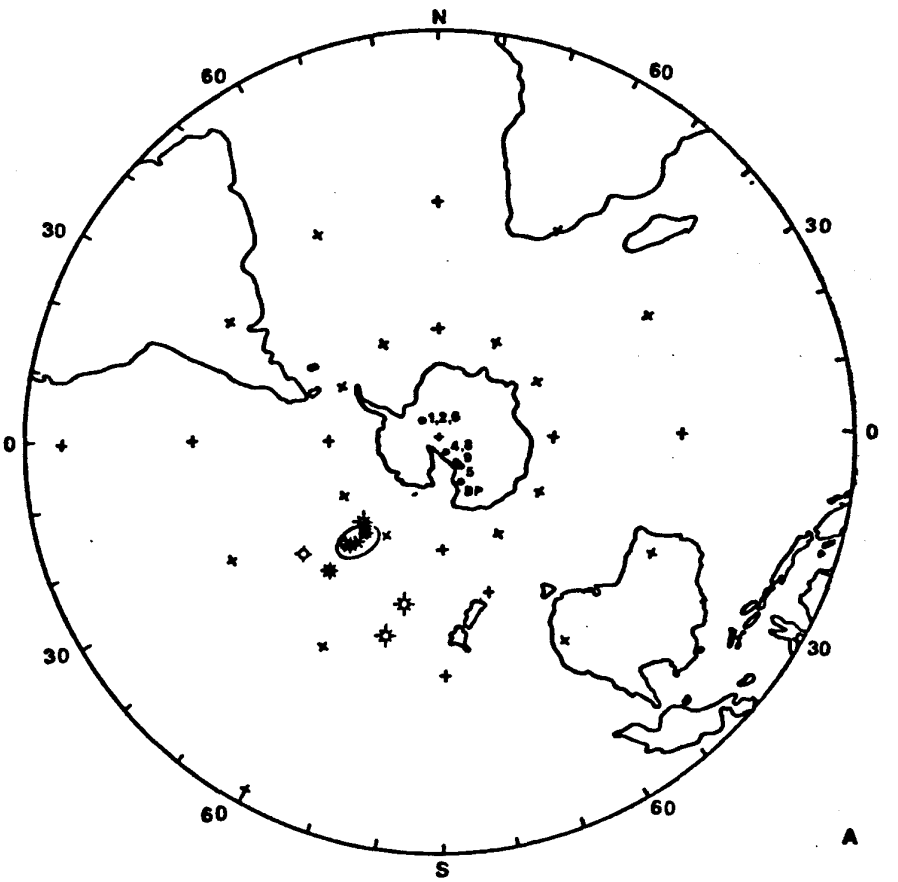

FIGURE 12 A: This figure indicates the VGP's for the Ferrar Supergroup. Kirkpatrick Basalt Group poles are indicated by ✧, Ferrar Dolerite Group poles are indicated by ✱, and Forrestal Gabbro Group poles are indicated by ✲. The pole for Brimstone Peak is indicateg by * and it's ellipse of 95% confidence. ✱ represents the site at Brimstone Peak with ✱ representing the sites listed in Table 4.

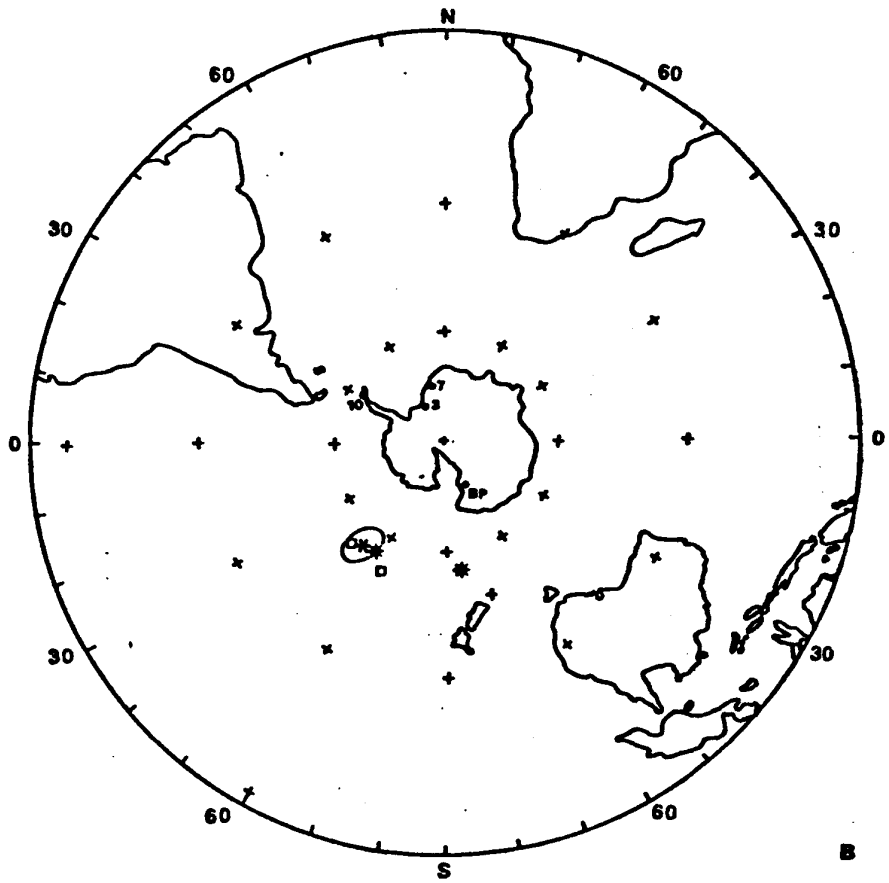

FIGURE 12 B: This figure shows the VGP's for Brimstone Peak, the tholeiites from Dronning Maud Land, as indicated by □ , and the Antarctic Peninsula, as indicated by ✱ . Other symbols are the same as above.

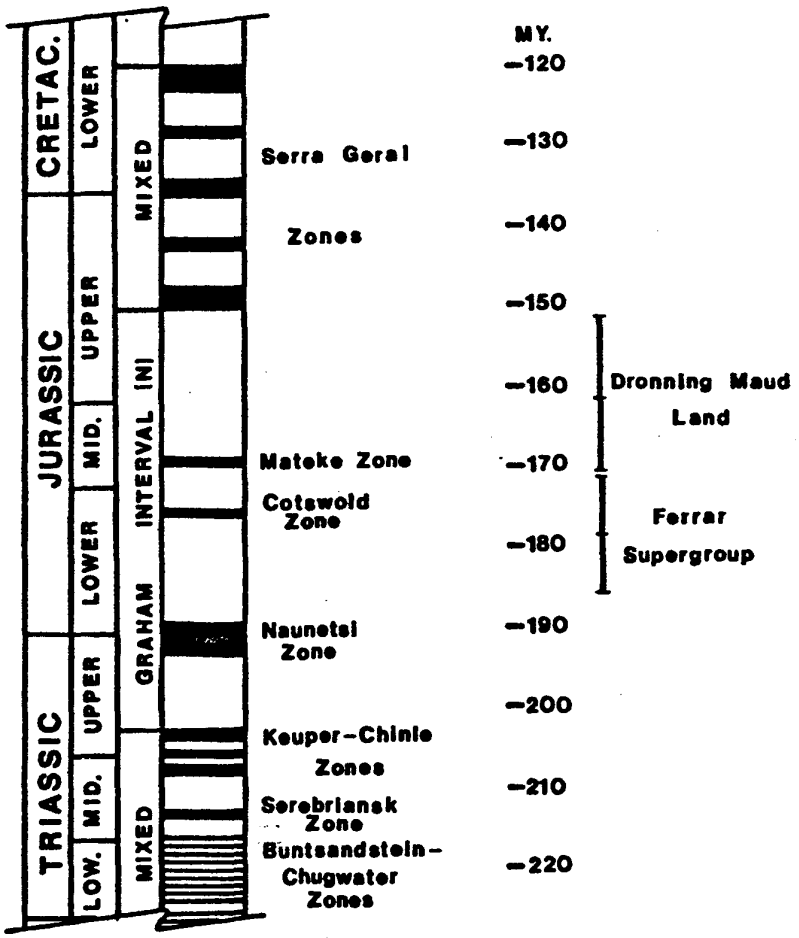

FIGURE 13: This figure indicates the relationships between Mesozoic paleomagnetic stratigraphy and the age spectra for the tholeiites from Dronning Maud Land and the Ferrar Supergroup. After McElhinny and Burek (1972).

CONCLUSIONS

The following results summarize the results of this investigation:

1. Koenigsberger ratios, AF demagnetization spectra analysis of Fisherian statistics indicates very stable thermoremnant magnetization and pseudo-single domain behavior.

2. NRM directions do not appear to be strongly affected by the present magnetic field.

3. All polarities indicate normal magnetization.

4. Cleaned paleomagnetic directions cluster well with a-95 = 3.6°and k = 163. The VGP determined for these flows lies at 55.5°S, 218.2°E.

5. The VGP for Brimstone Peak correlates well with other reliable VGP's for the Ferrar Supergroup and the tholeiites from Dronning Maud Land.

6. A new Jurassic VGP for Antarctica was determined from reliable data to be 53.3°S, 142.0°E with a-95 = 3.6° and k = 163.

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APPENDIX I: PALEOMAGNETIC DATA

*******FLOW 1 BRIMSTONE PEAK NRM **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
228.68	-85.25	B01-601D	NRM	-.42000E-02	-.50000E-04	-.50500E-01	0.507E-01	0.100E+01
218.11	-85.22	B01-601E	NRM	-.43000E-02	0.75000E-03	-.52250E-01	0.524E-01	0.100E+01
211.09	-83.91	B01-601G	NRM	-.51000E-02	0.15500E-02	-.50000E-01	0.503E-01	0.100E+01
216.49	-83.95	B01-601H	NRM	-.54000E-02	0.11000E-02	-.52000E-01	0.523E-01	0.100E+01
306.23	-84.38	B01-602D	NRM	-.56500E-02	-.12250E-02	-.58750E-01	0.590E-01	0.100E+01
300.44	-83.11	B01-602E	NRM	-.77500E-02	-.87500E-03	-.64500E-01	0.650E-01	0.100E+01
293.81	-83.29	B01-602G	NRM	-.74750E-02	0.25000E-04	-.63500E-01	0.639E-01	0.100E+01
298.35	-83.39	B01-602H	NRM	-.72250E-02	-.55000E-03	-.62500E-01	0.629E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.589E-02	0.906E-04	-.567E-01	0.571E-01	0.100E+01

****
THESE DATA ARE CALCULATED FORFLOW 1 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 263.11
MEAN INCLINATION FOR THE SITE IS -85.50

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 72.39
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 9.25

FISHER STATISTICS
NO. OF SAMPLES: 8 R = 7.9809
PRECISION FACTOR K = 367.41
CONE OF CONFIDENCE (ALPHA 95) = 2.89
DELTA P = 5.68 DELTA M = 5.73
THE STANDARD DIVERGENCE OF THE MEAN IS 1.60
THE FISHERIAN STANDARD DIVERGENCE IS 0.96

*******FLOW 1 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
236.79	-85.91	B01-601D	3000E	-.22625E-02	-.35000E-03	-.32000E-01	0.321E-01	0.633E+00
215.64	-84.03	B01-601E	3000E	-.36500E-02	0.80000E-03	-.35750E-01	0.359E-01	0.686E+00
223.57	-84.06	B01-601G	3000E	-.35500E-02	0.27500E-03	-.34250E-01	0.344E-01	0.685E+00
224.91	-83.16	B01-601H	3000E	-.46250E-02	0.25000E-03	-.38625E-01	0.389E-01	0.744E+00
277.90	-82.38	B01-602D	3000E	-.48500E-02	0.14000E-02	-.37750E-01	0.381E-01	0.645E+00
277.47	-85.53	B01-602E	3000E	-.31675E-02	0.94000E-03	-.42225E-01	0.424E-01	0.652E+00
285.60	-83.81	B01-602G	3000E	-.44000E-02	0.65000E-03	-.41000E-01	0.412E-01	0.645E+00
285.41	-82.71	B01-602H	3000E	-.56250E-02	0.85000E-03	-.44500E-01	0.449E-01	0.713E+00
THE MEAN MOMENTS ARE:				-.402E-02	0.602E-03	-.383E-01	0.385E-01	0.675E+00

****

THESE DATA ARE CALCULATED FORFLOW 1 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 254.89
MEAN INCLINATION FOR THE SITE IS -84.71

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 70.34
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 10.03

FISHER STATISTICS
NO. OF SAMPLES: 8 R = 7.9877
PRECISION FACTOR K = 570.99
CONE OF CONFIDENCE (ALPHA 95) = 2.32
DELTA P = 4.52 DELTA M = 4.58
THE STANDARD DIVERGENCE OF THE MEAN IS 1.28
THE FISHERIAN STANDARD DIVERGENCE IS 0.69

*******FLOW 1 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
223.82	-85.69	B01-601D	4000E	-.20500E-02	0.15000E-03	-.27250E-01	0.273E-01	0.539E+00
225.23	-84.19	B01-601E	4000E	-.31000E-02	0.15000E-03	-.30500E-01	0.307E-01	0.585E+00
220.99	-83.93	B01-601G	4000E	-.30500E-02	0.37500E-03	-.28875E-01	0.290E-01	0.577E+00
224.97	-83.42	B01-601H	4000E	-.37750E-02	0.20000E-03	-.32750E-01	0.330E-01	0.630E+00
288.42	-83.36	B01-602D	4000E	-.33250E-02	0.32500E-03	-.28700E-01	0.289E-01	0.489E+00
276.29	-82.69	B01-602E	4000E	-.38750E-02	0.12375E-02	-.31725E-01	0.320E-01	0.492E+00
283.54	-83.96	B01-602G	4000E	-.32500E-02	0.60000E-03	-.31250E-01	0.314E-01	0.491E+00
285.03	-82.77	B01-602H	4000E	-.42750E-02	0.67500E-03	-.34125E-01	0.344E-01	0.547E+00
THE MEAN MOMENTS ARE:				-.334E-02	0.464E-03	-.306E-01	0.308E-01	0.544E+00

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THESE DATA ARE CALCULATED FORFLOW 1 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 256.31
MEAN INCLINATION FOR THE SITE IS -84.57

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 70.33
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 11.17

FISHER STATISTICS
NO. OF SAMPLES: 8 R = 7.9873
PRECISION FACTOR K = 552.42
CONE OF CONFIDENCE (ALPHA 95) = 2.36
DELTA P = 4.59 DELTA M = 4.66
THE STANDARD DIVERGENCE OF THE MEAN IS 1.30
THE FISHERIAN STANDARD DIVERGENCE IS 0.71

*******FLOW 1 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
234.79	-87.46	B01-601D 5000E	-.10500E-02	-.12500E-03	-.23875E-01	0.239E-01	0.472E+00
223.79	-84.77	B01-601E 5000E	-.23750E-02	0.17500E-03	-.26000E-01	0.261E-01	0.498E+00
218.80	-83.81	B01-601G 5000E	-.26250E-02	0.42500E-03	-.24500E-01	0.246E-01	0.490E+00
219.29	-83.61	B01-601H 5000E	-.31000E-02	0.47500E-03	-.28000E-01	0.282E-01	0.539E+00
278.53	-82.80	B01-602D 5000E	-.28000E-02	0.77500E-03	-.23000E-01	0.232E-01	0.393E+00
279.28	-81.94	B01-602E 5000E	-.34250E-02	0.90000E-03	-.25000E-01	0.252E-01	0.389E+00
288.24	-83.75	B01-602G 5000E	-.27250E-02	0.27500E-03	-.25000E-01	0.251E-01	0.393E+00
286.27	-83.02	B01-602H 5000E	-.40500E-02	0.55000E-03	-.33375E-01	0.336E-01	0.534E+00
THE MEAN MOMENTS ARE:			-.277E-02	0.431E-03	-.261E-01	0.263E-01	0.463E+00

****

THESE DATA ARE CALCULATED FORFLOW 1 BRIMSTONE PEAK 500

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 258.06

MEAN INCLINATION FOR THE SITE IS -84.71

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 70.75

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 11.24

FISHER STATISTICS

NO. OF SAMPLES: 8 R = 7.9856

PRECISION FACTOR K = 487.22

CONE OF CONFIDENCE (ALPHA 95) = 2.51

DELTA P = 4.90 DELTA M = 4.96

THE STANDARD DIVERGENCE OF THE MEAN IS 1.39

THE FISHERIAN STANDARD DIVERGENCE IS 0.78

*******FLOW 2 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
321.51	-75.61	B02-603A	NRM	0.40000E-03	-.41500E-02	-.16250E-01	0.168E-01	0.100E+01
320.16	-59.61	B02-603B	NRM	0.42500E-03	-.58500E-02	-.10000E-01	0.116E-01	0.100E+01
333.35	-69.08	B02-603C	NRM	0.87500E-03	-.28000E-02	-.76750E-02	0.822E-02	0.100E+01
289.54	-70.65	B02-604D	NRM	0.12500E-03	-.15750E-02	-.45000E-02	0.477E-02	0.100E+01
359.58	-78.66	B02-604E	NRM	0.72500E-03	-.20000E-03	-.37500E-02	0.382E-02	0.100E+01
358.24	-85.20	B02-604G	NRM	0.44000E-03	-.13250E-03	-.54750E-02	0.549E-02	0.100E+01
301.54	-74.02	B02-604H	NRM	0.37500E-03	-.12625E-02	-.46000E-02	0.478E-02	0.100E+01
THE MEAN MOMENTS ARE:				0.481E-03	-.228E-02	-.746E-02	0.792E-02	0.100E+01

****

THESE DATA ARE CALCULATED FORFLOW 2 BRIMSTONE PEAK NRM

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 320.38

MEAN INCLINATION FOR THE SITE IS -74.32

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 69.69

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 94.50

FISHER STATISTICS

NO. OF SAMPLES: 7 R = 6.9040

PRECISION FACTOR K = 62.52

CONE OF CONFIDENCE (ALPHA 95) = 7.69

DELTA P = 12.62 DELTA M = 13.94

THE STANDARD DIVERGENCE OF THE MEAN IS 4.19

THE FISHERIAN STANDARD DIVERGENCE IS 3.62

*******FLOW 2 BRIMSTONE PEAK 300 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
307.44	-78.73	B02-603A	3000E	-.35000E-03	-.23250E-02	-.11800E-01	0.120E-01	0.717E+00
304.21	-78.93	B02-603B	3000E	-.47500E-03	-.22750E-02	-.11875E-01	0.121E-01	0.104E+01
285.86	-80.91	B02-603C	3000E	-.45000E-03	-.77500E-03	-.56000E-02	0.567E-02	0.690E+00
262.08	-83.03	B02-604D	3000E	-.15750E-03	-.37250E-03	-.33075E-02	0.333E-02	0.699E+00
269.12	-84.35	B02-604E	3000E	-.87500E-04	-.30750E-03	-.32325E-02	0.325E-02	0.849E+00
266.67	-83.95	B02-604G	3000E	-.13750E-03	-.41500E-03	-.41250E-02	0.415E-02	0.755E+00
270.96	-83.89	B02-604H	3000E	-.10000E-03	-.40000E-03	-.38500E-02	0.387E-02	0.809E+00
THE MEAN MOMENTS ARE:				-.251E-03	-.981E-03	-.626E-02	0.634E-02	0.795E+00

****
THESE DATA ARE CALCULATED FORFLOW 2 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 285.43
MEAN INCLINATION FOR THE SITE IS -82.35

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 72.41
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 34.38

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9882
PRECISION FACTOR K = 507.09
CONE OF CONFIDENCE (ALPHA 95) = 2.68
DELTA P = 5.10 DELTA M = 5.23
THE STANDARD DIVERGENCE OF THE MEAN IS 1.47
THE FISHERIAN STANDARD DIVERGENCE IS 0.75

*******FLOW 2 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
307.63	-79.31	B02-603A	4000E	-.25000E-03	-.17000E-02	-.91000E-02	0.926E-02	0.552E+00
287.29	-81.19	B02-603B	4000E	-.57500E-03	-.10500E-02	-.77250E-02	0.782E-02	0.674E+00
277.34	-83.11	B02-603C	4000E	-.30000E-03	-.37500E-03	-.39750E-02	0.400E-02	0.487E+00
250.95	-79.86	B02-604D	4000E	-.25000E-03	-.37000E-03	-.24975E-02	0.254E-02	0.532E+00
261.04	-85.00	B02-604E	4000E	-.80000E-04	-.18000E-03	-.22500E-02	0.226E-02	0.591E+00
258.80	-83.38	B02-604G	4000E	-.15500E-03	-.31500E-03	-.30250E-02	0.305E-02	0.554E+00
274.09	-84.31	B02-604H	4000E	-.52500E-04	-.27250E-03	-.27875E-02	0.280E-02	0.585E+00
THE MEAN MOMENTS ARE:				-.237E-03	-.609E-03	-.448E-02	0.453E-02	0.568E+00

****

THESE DATA ARE CALCULATED FORFLOW 2 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 275.72
MEAN INCLINATION FOR THE SITE IS -82.76

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 71.03
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 27.47

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9884
PRECISION FACTOR K = 515.23
CONE OF CONFIDENCE (ALPHA 95) = 2.66
DELTA P = 5.08 DELTA M = 5.20
THE STANDARD DIVERGENCE OF THE MEAN IS 1.46
THE FISHERIAN STANDARD DIVERGENCE IS 0.74

*******FLOW 2 BRIMSTONE PEAK 500 **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
291.56	-77.78	B02-603A 5000E	-.62500E-03	-.13750E-02	-.69750E-02	0.714E-02	0.425E+00
280.40	-81.29	B02-603B 5000E	-.47250E-03	-.66000E-03	-.53000E-02	0.536E-02	0.462E+00
292.04	-79.64	B02-603C 5000E	-.18000E-03	-.40500E-03	-.24250E-02	0.247E-02	0.300E+00
259.63	-75.26	B02-604D 5000E	-.13750E-03	-.29000E-03	-.12200E-02	0.126E-02	0.265E+00
241.51	-84.47	B02-604E 5000E	-.92500E-04	-.97500E-04	-.13875E-02	0.139E-02	0.364E+00
257.14	-83.93	B02-604G 5000E	-.92500E-04	-.17500E-03	-.18625E-02	0.187E-02	0.341E+00
257.28	-84.65	B02-604H 5000E	-.77500E-04	-.14750E-03	-.17800E-02	0.179E-02	0.374E+00
THE MEAN MOMENTS ARE:			-.240E-03	-.450E-03	-.299E-02	0.304E-02	0.362E+00

****
THESE DATA ARE CALCULATED FORFLOW 2 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 272.02
MEAN INCLINATION FOR THE SITE IS -81.42

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 68.54
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 30.68

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9802
PRECISION FACTOR K = 303.29
CONE OF CONFIDENCE (ALPHA 95) = 3.47
DELTA P = 6.51 DELTA M = 6.72
THE STANDARD DIVERGENCE OF THE MEAN IS 1.90
THE FISHERIAN STANDARD DIVERGENCE IS 1.11

*******FLOW 3 BRIMSTONE PEAK NRM **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
255.78	-76.06	B03-605A NRM	-.56750E-02	-.47250E-02	-.29750E-01	0.307E-01	0.100E+01
268.51	-73.41	B03-605B NRM	-.53500E-02	-.69750E-02	-.29500E-01	0.308E-01	0.100E+01
293.56	-72.16	B03-606D NRM	-.22500E-03	-.23625E-02	-.73750E-02	0.775E-02	0.100E+01
283.10	-73.08	B03-606E NRM	-.63750E-03	-.22375E-02	-.76500E-02	0.800E-02	0.100E+01
305.25	-70.63	B03-606G NRM	0.55000E-03	-.50250E-02	-.14375E-01	0.152E-01	0.100E+01
305.25	-70.63	B03-606H NRM	0.55000E-03	-.50250E-02	-.14375E-01	0.152E-01	0.100E+01
THE MEAN MOMENTS ARE:			-.180E-02	-.439E-02	-.172E-01	0.179E-01	0.100E+01

****
THESE DATA ARE CALCULATED FORFLOW 3 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 287.25
MEAN INCLINATION FOR THE SITE IS -73.44

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 60.52
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 61.12

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.9719
PRECISION FACTOR K = 177.68
CONE OF CONFIDENCE (ALPHA 95) = 5.04
DELTA P = 8.11 DELTA M = 9.04
THE STANDARD DIVERGENCE OF THE MEAN IS 2.72
THE FISHERIAN STANDARD DIVERGENCE IS 1.65

*******FLOW 3 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
252.63	-73.77	B03-605A	3000E	-.19500E-02	-.14500E-02	-.83500E-02	0.870E-02	0.284E+00
253.34	-76.26	B03-605B	3000E	-.15500E-02	-.11825E-02	-.79750E-02	0.821E-02	0.267E+00
283.27	-77.62	B03-606D	3000E	-.17250E-03	-.61250E-03	-.29000E-02	0.297E-02	0.383E+00
293.46	-53.07	B03-606E	3000E	-.23750E-03	-.24500E-02	-.32750E-02	0.410E-02	0.512E+00
296.22	-79.53	B03-606G	3000E	-.17500E-04	-.36000E-03	-.19500E-02	0.198E-02	0.130E+00
296.22	-79.53	B03-606H	3000E	-.17500E-04	-.36000E-03	-.19500E-02	0.198E-02	0.130E+00
THE MEAN MOMENTS ARE:				-.657E-03	-.107E-02	-.440E-02	0.466E-02	0.284E+00

****

THESE DATA ARE CALCULATED FORFLOW 3 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 280.66
MEAN INCLINATION FOR THE SITE IS -74.18

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 59.98
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 54.12

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.8978
PRECISION FACTOR K = 48.91
CONE OF CONFIDENCE (ALPHA 95) = 9.67
DELTA P = 15.82 DELTA M = 17.50
THE STANDARD DIVERGENCE OF THE MEAN IS 5.20
THE FISHERIAN STANDARD DIVERGENCE IS 4.35

*******FLOW 3 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
249.41	-74.85	B03-605A	400OE	-.11750E-02	-.77500E-03	-.52000E-02	0.539E-02	0.176E+00
252.10	-63.18	B03-605B	400OE	-.96000E-03	-.70000E-03	-.23500E-02	0.263E-02	0.855E-01
312.90	-57.02	B03-606D	400OE	0.30000E-03	-.12125E-02	-.19250E-02	0.229E-02	0.296E+00
265.23	-69.35	B03-606E	400OE	-.27750E-03	-.41500E-03	-.13250E-02	0.142E-02	0.177E+00
262.70	-81.14	B03-606G	400OE	-.90000E-04	-.12250E-03	-.97500E-03	0.987E-03	0.648E-01
262.70	-81.14	B03-606H	400OE	-.90000E-04	-.12250E-03	-.97500E-03	0.987E-03	0.648E-01
THE MEAN MOMENTS ARE:				-.382E-03	-.558E-03	-.212E-02	0.228E-02	0.144E+00

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THESE DATA ARE CALCULATED FORFLOW 3 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 272.36
MEAN INCLINATION FOR THE SITE IS -72.85

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 56.13
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 48.90

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.8696
PRECISION FACTOR K = 38.33
CONE OF CONFIDENCE (ALPHA 95) = 10.96
DELTA P = 17.38 DELTA M = 19.52
THE STANDARD DIVERGENCE OF THE MEAN IS 5.88
THE FISHERIAN STANDARD DIVERGENCE IS 5.22

*******FLOW 3 BRIMSTONE PEAK 500 **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
249.06	-73.76	B03-605A 5000E	-.78750E-03	-.51250E-03	-.32250E-02	0.336E-02	0.110E+00
254.58	-75.21	B03-605B 5000E	-.64250E-03	-.51250E-03	-.31125E-02	0.322E-02	0.105E+00
265.06	-71.70	B03-606D 5000E	-.18000E-03	-.26750E-03	-.97500E-03	0.103E-02	0.133E+00
271.88	-73.45	B03-606E 5000E	-.15750E-03	-.30750E-03	-.11625E-02	0.121E-02	0.152E+00
251.83	-67.66	B03-606G 5000E	-.20500E-03	-.19000E-03	-.68000E-03	0.735E-03	0.482E-01
251.83	-67.66	B03-606H 5000E	-.20500E-03	-.19000E-03	-.68000E-03	0.735E-03	0.482E-01
THE MEAN MOMENTS ARE:			-.363E-03	-.330E-03	-.164E-02	0.171E-02	0.991E-01

****
THESE DATA ARE CALCULATED FORFLOW 3 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 256.97
MEAN INCLINATION FOR THE SITE IS -71.74

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 51.15
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 37.36

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.9862
PRECISION FACTOR K = 361.60
CONE OF CONFIDENCE (ALPHA 95) = 3.53
DELTA P = 5.45 DELTA M = 6.20
THE STANDARD DIVERGENCE OF THE MEAN IS 1.91
THE FISHERIAN STANDARD DIVERGENCE IS 0.97

*******FLOW 4 BRIMSTONE PEAK NRM **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
232.70	-64.24	B04-701D	NRM	0.18950E-01	-.17000E-01	-.52750E-01	0.586E-01	0.100E+01
236.69	-62.85	B04-701E	NRM	0.19425E-01	-.15125E-01	-.48000E-01	0.539E-01	0.100E+01
238.79	-67.46	B04-701G	NRM	0.17500E-01	-.12625E-01	-.52000E-01	0.563E-01	0.100E+01
239.09	-68.63	B04-702D	NRM	0.13875E-01	-.22125E-01	-.66750E-01	0.717E-01	0.100E+01
240.01	-71.84	B04-702E	NRM	0.10900E-01	-.16775E-01	-.61000E-01	0.642E-01	0.100E+01
237.84	-72.58	B04-702G	NRM	0.10375E-01	-.17375E-01	-.64500E-01	0.676E-01	0.100E+01
241.13	-67.12	B04-702H	NRM	0.14625E-01	-.21575E-01	-.61750E-01	0.670E-01	0.100E+01
168.43	-25.26	B04-703D	NRM	0.71250E-02	-.12225E-01	-.66750E-02	0.156E-01	0.100E+01
183.20	-54.28	B04-703E	NRM	0.75000E-03	-.75000E-03	-.14750E-02	0.182E-02	0.100E+01
218.93	-50.86	B04-703F	NRM	0.12250E-02	-.20000E-03	-.15250E-02	0.197E-02	0.100E+01
213.40	-47.10	B04-703G	NRM	0.13250E-02	-.35000E-03	-.14750E-02	0.201E-02	0.100E+01
195.29	-70.44	B04-703H	NRM	0.42500E-03	-.27500E-03	-.14250E-02	0.151E-02	0.100E+01
244.82	-63.98	B04-704D	NRM	0.16750E-02	-.10500E-02	-.40500E-02	0.451E-02	0.100E+01
242.99	-63.59	B04-704E	NRM	0.15250E-02	-.10250E-02	-.37000E-02	0.413E-02	0.100E+01
242.52	-64.53	B04-704G	NRM	0.28500E-02	-.19500E-02	-.72500E-02	0.803E-02	0.100E+01
245.14	-61.42	B04-704H	NRM	0.15750E-02	-.97500E-03	-.34000E-02	0.387E-02	0.100E+01
THE MEAN MOMENTS ARE:				0.776E-02	-.884E-02	-.274E-01	0.302E-01	0.100E+01

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THESE DATA ARE CALCULATED FORFLOW 4 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 222.07
MEAN INCLINATION FOR THE SITE IS -63.69

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 34.16
LONGITUDE OF THE GEOMACETIC POLE (+ = E. LONG.; - = W. LONG.): 13.26

FISHER STATISTICS
NO. OF SAMPLES: 16 R = 15.3228
PRECISION FACTOR K = 22.15
CONE OF CONFIDENCE (ALPHA 95) = 8.02
DELTA P = 10.09 DELTA M = 12.72
THE STANDARD DIVERGENCE OF THE MEAN IS 4.54
THE FISHERIAN STANDARD DIVERGENCE IS 7.87

*******FLOW 4 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
236.76	-64.33	B04-701D	3000E	0.65000E-02	-.50500E-02	-.17125E-01	0.190E-01	0.324E+00
238.69	-63.94	B04-701E	3000E	0.65250E-02	-.47250E-02	-.16475E-01	0.183E-01	0.340E+00
225.37	-52.34	B04-701G	3000E	0.79750E-02	-.92500E-02	-.15825E-01	0.200E-01	0.355E+00
243.50	-69.81	B04-702D	3000E	0.60500E-02	-.81750E-02	-.27650E-01	0.295E-01	0.411E+00
242.64	-70.48	B04-702E	3000E	0.54500E-02	-.76000E-02	-.26375E-01	0.280E-01	0.436E+00
244.69	-70.11	B04-702G	3000E	0.59500E-02	-.77000E-02	-.26900E-01	0.286E-01	0.423E+00
244.89	-69.73	B04-702H	3000E	0.58750E-02	-.75500E-02	-.25900E-01	0.276E-01	0.412E+00
253.60	-43.49	B04-703D	3000E	0.84750E-03	0.40250E-03	-.89000E-03	0.129E-02	0.827E-01
253.60	-43.49	B04-703E	3000E	0.84750E-03	0.40250E-03	-.89000E-03	0.129E-02	0.712E+00
239.76	-66.19	B04-703F	3000E	0.64750E-03	0.13250E-03	-.14975E-02	0.164E-02	0.832E+00
239.94	-65.63	B04-703G	3000E	0.69750E-03	0.14500E-03	-.15725E-02	0.173E-02	0.857E+00
241.00	-65.53	B04-703H	3000E	0.66000E-03	0.15000E-03	-.14875E-02	0.163E-02	0.108E+01
244.58	-64.21	B04-704D	3000E	0.61250E-03	-.38750E-03	-.15000E-02	0.167E-02	0.370E+00
246.41	-64.66	B04-704E	3000E	0.57750E-03	-.34000E-03	-.14150E-02	0.157E-02	0.379E+00
244.50	-65.45	B04-704G	3000E	0.11975E-02	-.76000E-03	-.31050E-02	0.341E-02	0.425E+00
245.94	-65.05	B04-704H	3000E	0.58750E-03	-.35250E-03	-.14725E-02	0.162E-02	0.419E+00
THE MEAN MOMENTS ARE:				0.319E-02	-.317E-02	-.106E-01	0.117E-01	0.491E+00

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THESE DATA ARE CALCULATED FORFLOW 4 BRIMSTONE PEAK 300

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 243.28

MEAN INCLINATION FOR THE SITE IS -63.02

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 36.92

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 31.41

FISHER STATISTICS

NO. OF SAMPLES: 16 R = 15.8040

PRECISION FACTOR K = 76.55

CONE OF CONFIDENCE (ALPHA 95) = 4.24

DELTA P = 5.25 DELTA M = 6.67

THE STANDARD DIVERGENCE OF THE MEAN IS 2.40

THE FISHERIAN STANDARD DIVERGENCE IS 3.11

*******FLOW 4 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
239.00	-64.80	B04-701D	400OE	0.44000E-02	-.31500E-02	-.11500E-01	0.127E-01	0.217E+00
236.78	-64.28	B04-701E	400OE	0.43000E-02	-.33375E-02	-.11300E-01	0.125E-01	0.233E+00
238.77	-64.16	B04-701G	400OE	0.51250E-02	-.37000E-02	-.13050E-01	0.145E-01	0.258E+00
243.96	-70.98	B04-702D	400OE	0.40250E-02	-.53500E-02	-.19425E-01	0.205E-01	0.287E+00
243.52	-71.10	B04-702E	400OE	0.38500E-02	-.52000E-02	-.18900E-01	0.200E-01	0.311E+00
243.91	-70.47	B04-702G	400OE	0.40000E-02	-.53250E-02	-.18775E-01	0.199E-01	0.295E+00
245.86	-70.47	B04-702H	400OE	0.41500E-02	-.51500E-02	-.18650E-01	0.198E-01	0.295E+00
238.55	-62.96	B04-703D	400OE	0.60250E-03	0.11000E-03	-.12000E-02	0.135E-02	0.861E-01
238.55	-62.96	B04-703E	400OE	0.60250E-03	0.11000E-03	-.12000E-02	0.135E-02	0.742E+00
240.29	-66.58	B04-703F	400OE	0.56000E-03	0.12000E-03	-.13225E-02	0.144E-02	0.733E+00
246.06	-65.23	B04-703G	400OE	0.60500E-03	0.19500E-03	-.13775E-02	0.152E-02	0.753E+00
240.23	-66.03	B04-703H	400OE	0.57500E-03	0.12250E-03	-.13225E-02	0.145E-02	0.957E+00
250.69	-62.15	B04-704D	400OE	0.64000E-03	-.31500E-03	-.13500E-02	0.153E-02	0.339E+00
248.83	-65.08	B04-704E	400OE	0.45000E-03	-.24000E-03	-.10975E-02	0.121E-02	0.293E+00
245.07	-65.40	B04-704G	400OE	0.96250E-03	-.59750E-03	-.24750E-02	0.272E-02	0.339E+00
246.55	-64.60	B04-704H	400OE	0.38000E-03	-.22250E-03	-.92750E-03	0.103E-02	0.265E+00
THE MEAN MOMENTS ARE:				0.220E-02	-.200E-02	-.774E-02	0.835E-02	0.400E+00

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THESE DATA ARE CALCULATED FORFLOW 4 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 242.84
MEAN INCLINATION FOR THE SITE IS -66.13

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 40.69
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 29.59

FISHER STATISTICS
NO. OF SAMPLES: 16 R = 15.9724
PRECISION FACTOR K = 543.55
CONE OF CONFIDENCE (ALPHA 95) = 1.58
DELTA P = 2.12 DELTA M = 2.59
THE STANDARD DIVERGENCE OF THE MEAN IS 0.90
THE FISHERIAN STANDARD DIVERGENCE IS 0.71

*******FLOW 4 BRIMSTONE PEAK 500 **
 SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
238.51	-65.61	B04-701D 5000E	0.29500E-02	-.21500E-02	-.80500E-02	0.884E-02	0.151E+00
238.66	-64.87	B04-701E 5000E	0.30000E-02	-.21750E-02	-.79000E-02	0.873E-02	0.162E+00
239.22	-64.19	B04-701G 5000E	0.34500E-02	-.24500E-02	-.87500E-02	0.972E-02	0.173E+00
246.77	-69.66	B04-702D 5000E	0.32250E-02	-.38750E-02	-.13600E-01	0.145E-01	0.202E+00
241.31	-71.61	B04-702E 5000E	0.25250E-02	-.37000E-02	-.13475E-01	0.142E-01	0.221E+00
243.30	-70.81	B04-702G 5000E	0.27000E-02	-.36750E-02	-.13100E-01	0.139E-01	0.205E+00
249.89	-68.75	B04-702H 5000E	0.36000E-02	-.38750E-02	-.13600E-01	0.146E-01	0.218E+00
239.67	-62.14	B04-703D 5000E	0.50500E-03	0.10250E-03	-.97500E-03	0.110E-02	0.705E-01
239.67	-62.14	B04-703E 5000E	0.50500E-03	0.10250E-03	-.97500E-03	0.110E-02	0.607E+00
245.94	-65.74	B04-703F 5000E	0.50000E-03	0.16000E-03	-.11650E-02	0.128E-02	0.650E+00
242.24	-65.87	B04-703G 5000E	0.54000E-03	0.13500E-03	-.12425E-02	0.136E-02	0.676E+00
241.54	-66.75	B04-703H 5000E	0.48500E-03	0.11500E-03	-.11600E-02	0.126E-02	0.835E+00
243.28	-64.22	B04-704D 5000E	0.44750E-03	-.29750E-03	-.11125E-02	0.124E-02	0.274E+00
249.87	-65.55	B04-704E 5000E	0.36750E-03	-.18750E-03	-.90750E-03	0.997E-03	0.241E+00
244.76	-66.09	B04-704G 5000E	0.78000E-03	-.49000E-03	-.20775E-02	0.227E-02	0.283E+00
246.27	-64.66	B04-704H 5000E	0.38000E-03	-.22500E-03	-.93250E-03	0.103E-02	0.266E+00
THE MEAN MOMENTS ARE:			0.162E-02	-.141E-02	-.556E-02	0.601E-02	0.327E+00

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THESE DATA ARE CALCULATED FORFLOW 4 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 243.05
MEAN INCLINATION FOR THE SITE IS -66.21

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 40.83
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 29.73

FISHER STATISTICS
NO. OF SAMPLES: 16 R = 15.9771
PRECISION FACTOR K = 656.18
CONE OF CONFIDENCE (ALPHA 95) = 1.44
DELTA P = 1.94 DELTA M = 2.36
THE STANDARD DIVERGENCE OF THE MEAN IS 0.82
THE FISHERIAN STANDARD DIVERGENCE IS 0.62

*******FLOW 5 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
264.65	-75.24	B05-705D	NRM	0.24750E-02	-.47250E-02	-.20250E-01	0.209E-01	0.100E+01
261.22	-71.83	B05-705E	NRM	0.25750E-02	-.57250E-02	-.19125E-01	0.201E-01	0.100E+01
261.31	-71.32	B05-705G	NRM	0.25750E-02	-.57000E-02	-.18500E-01	0.195E-01	0.100E+01
264.05	-68.04	B05-706D	NRM	0.19250E-02	-.52750E-02	-.13925E-01	0.150E-01	0.100E+01
239.40	-65.85	B05-706G	NRM	-.47500E-03	-.59000E-02	-.13200E-01	0.145E-01	0.100E+01
258.15	-66.93	B05-801A	NRM	0.65000E-02	0.55750E-01	-.13175E+00	0.143E+00	0.100E+01
252.50	-68.21	B05-801B	NRM	0.12750E-01	0.58500E-01	-.14975E+00	0.161E+00	0.100E+01
253.96	-79.23	B05-802D	NRM	0.27250E-01	0.42500E-02	-.14500E+00	0.148E+00	0.100E+01
260.52	-80.53	B05-802E	NRM	0.24200E-01	0.66750E-02	-.15050E+00	0.153E+00	0.100E+01
248.47	-64.00	B05-802G	NRM	0.55250E-01	0.32500E-02	-.11350E+00	0.126E+00	0.100E+01
255.14	-80.33	B05-802H	NRM	0.24000E-01	0.42500E-02	-.14300E+00	0.145E+00	0.100E+01
267.73	-72.74	B05-803A	NRM	-.22500E-01	-.18500E-01	-.93750E-01	0.982E-01	0.100E+01
266.63	-73.83	B05-803B	NRM	-.21500E-01	-.17000E-01	-.94500E-01	0.984E-01	0.100E+01
261.02	-74.24	B05-803C	NRM	-.22375E-01	-.14375E-01	-.94250E-01	0.979E-01	0.100E+01
272.88	-65.43	B05-804D	NRM	-.25750E-01	0.72500E-02	-.58500E-01	0.643E-01	0.100E+01
271.95	-65.76	B05-804E	NRM	-.26750E-01	0.80000E-02	-.62000E-01	0.680E-01	0.100E+01
270.17	-66.27	B05-804G	NRM	-.23250E-01	0.77500E-02	-.55750E-01	0.609E-01	0.100E+01
270.17	-66.27	B05-804H	NRM	-.23250E-01	0.77500E-02	-.55750E-01	0.609E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.353E-03	0.479E-02	-.796E-01	0.841E-01	0.100E+01

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THESE DATA ARE CALCULATED FORFLOW 5 BRIMSTONE PEAK NRM

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 261.31

MEAN INCLINATION FOR THE SITE IS -71.12

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 51.20

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 41.51

FISHER STATISTICS

NO. OF SAMPLES: 18 R = 17.8992

PRECISION FACTOR K = 168.65

CONE OF CONFIDENCE (ALPHA 95) = 2.67

DELTA P = 4.06 DELTA M = 4.66

THE STANDARD DIVERGENCE OF THE MEAN IS 1.51

THE FISHERIAN STANDARD DIVERGENCE IS 1.72

******FLOW 5 BRIMSTONE PEAK 300 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
269.47	-76.89	B05-705D	3000E	0.35000E-03	-.55000E-03	-.28000E-02	0.287E-02	0.137E+00
249.43	-74.01	B05-705E	3000E	0.17750E-03	-.80500E-03	-.28775E-02	0.299E-02	0.149E+00
248.05	-75.16	B05-705G	3000E	0.14250E-03	-.73000E-03	-.28075E-02	0.290E-02	0.149E+00
247.74	-77.99	B05-706D	3000E	0.25000E-04	-.38250E-03	-.18025E-02	0.184E-02	0.123E+00
235.11	-78.16	B05-706G	3000E	-.70000E-04	-.44750E-03	-.21600E-02	0.221E-02	0.153E+00
257.02	-67.46	B05-801A	3000E	0.47500E-02	0.34750E-01	-.84500E-01	0.915E-01	0.639E+00
242.32	-77.99	B05-801B	3000E	0.60000E-02	0.14500E-01	-.73750E-01	0.754E-01	0.468E+00
255.76	-79.83	B05-802D	3000E	0.21250E-01	0.40000E-02	-.12050E+00	0.122E+00	0.829E+00
300.65	-73.87	B05-802E	3000E	0.20375E-01	0.29700E-01	-.12450E+00	0.130E+00	0.849E+00
252.61	-79.45	B05-802G	3000E	0.22750E-01	0.30000E-02	-.12325E+00	0.125E+00	0.993E+00
252.74	-80.55	B05-802H	3000E	0.20500E-01	0.27500E-02	-.12425E+00	0.126E+00	0.868E+00
267.27	-72.63	B05-803A	3000E	-.22250E-01	-.18000E-01	-.91500E-01	0.959E-01	0.977E+00
283.25	-77.66	B05-803B	3000E	-.11750E-01	-.16750E-01	-.93500E-01	0.957E-01	0.973E+00
274.11	-78.46	B05-803C	3000E	-.13125E-01	-.13500E-01	-.92250E-01	0.942E-01	0.961E+00
273.22	-65.25	B05-804D	3000E	-.10000E-01	0.27500E-02	-.22500E-01	0.248E-01	0.385E+00
272.91	-63.94	B05-804E	3000E	-.11125E-01	0.31250E-02	-.23625E-01	0.263E-01	0.387E+00
272.82	-65.90	B05-804G	3000E	-.92000E-02	0.26000E-02	-.21375E-01	0.234E-01	0.384E+00
272.86	-65.85	B05-804H	3000E	-.92250E-02	0.26000E-02	-.21375E-01	0.234E-01	0.385E+00
THE MEAN MOMENTS ARE:				0.532E-03	0.270E-02	-.572E-01	0.593E-01	0.545E+00

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THESE DATA ARE CALCULATED FORFLOW 5 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 264.68
MEAN INCLINATION FOR THE SITE IS -74.48

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 56.77
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 40.48

FISHER STATISTICS
NO. OF SAMPLES: 18 R = 17.8695
PRECISION FACTOR K = 130.28
CONE OF CONFIDENCE (ALPHA 95) = 3.04
DELTA P = 5.00 DELTA M = 5.52
THE STANDARD DIVERGENCE OF THE MEAN IS 1.72
THE FISHERIAN STANDARD DIVERGENCE IS 2.08

*******FLOW 5 BRIMSTONE PEAK 400 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
269.83	-77.87	B05-705D 4000E	0.15000E-03	-.23250E-03	-.12875E-02	0.132E-02	0.629E-01
238.04	-73.12	B05-705E 4000E	0.75000E-05	-.41250E-03	-.13600E-02	0.142E-02	0.706E-01
242.33	-75.02	B05-705G 4000E	0.35000E-04	-.37500E-03	-.14075E-02	0.146E-02	0.746E-01
230.28	-77.08	B05-706D 4000E	-.52500E-04	-.21500E-03	-.96500E-03	0.990E-03	0.659E-01
234.54	-76.14	B05-706G 4000E	-.50000E-04	-.30000E-03	-.12325E-02	0.127E-02	0.878E-01
257.28	-67.49	B05-801A 4000E	0.35000E-02	0.26500E-01	-.64500E-01	0.698E-01	0.488E+00
252.71	-69.10	B05-801B 4000E	0.45000E-02	0.21000E-01	-.56250E-01	0.602E-01	0.373E+00
253.47	-80.39	B05-802D 4000E	0.17000E-01	0.25000E-02	-.10150E+00	0.103E+00	0.697E+00
260.70	-80.69	B05-802E 4000E	0.16025E-01	0.44750E-02	-.10150E+00	0.103E+00	0.674E+00
252.50	-79.40	B05-802G 4000E	0.19250E-01	0.25000E-02	-.10375E+00	0.106E+00	0.836E+00
255.96	-80.10	B05-802H 4000E	0.18250E-01	0.35000E-02	-.10650E+00	0.108E+00	0.745E+00
267.37	-72.91	B05-803A 4000E	-.21250E-01	-.17250E-01	-.89000E-01	0.931E-01	0.948E+00
267.82	-73.80	B05-803B 4000E	-.20000E-01	-.16500E-01	-.89250E-01	0.929E-01	0.945E+00
256.63	-71.92	B05-803C 4000E	-.25500E-01	-.13750E-01	-.88750E-01	0.934E-01	0.953E+00
276.32	-63.25	B05-804D 4000E	-.73500E-02	0.16000E-02	-.14925E-01	0.167E-01	0.260E+00
275.25	-64.12	B05-804E 4000E	-.73750E-02	0.17500E-02	-.15625E-01	0.174E-01	0.255E+00
277.94	-65.36	B05-804G 4000E	-.63000E-02	0.11855E-02	-.13975E-01	0.154E-01	0.252E+00
272.86	-64.90	B05-804H 4000E	-.63000E-02	0.17750E-02	-.13975E-01	0.154E-01	0.253E+00
THE MEAN MOMENTS ARE:			-.859E-03	0.986E-03	-.481E-01	0.500E-01	0.447E+00

****
THESE DATA ARE CALCULATED FORFLOW 5 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 260.45
MEAN INCLINATION FOR THE SITE IS -73.44

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 54.34
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 38.41

FISHER STATISTICS
NO. OF SAMPLES: 18 R = 17.8602
PRECISION FACTOR K = 121.61
CONE OF CONFIDENCE (ALPHA 95) = 3.15
DELTA P = 5.06 DELTA M = 5.64
THE STANDARD DIVERGENCE OF THE MEAN IS 1.78
THE FISHERIAN STANDARD DIVERGENCE IS 2.20

*******FLOW 5 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
273.43	-71.82	B05-705D 5000E	0.15500E-03	-.21000E-03	-.79500E-03	0.837E-03	0.400E-01
242.33	-70.73	B05-705E 5000E	0.27500E-04	-.29500E-03	-.84750E-03	0.898E-03	0.446E-01
230.33	-74.13	B05-705G 5000E	-.27500E-04	-.23500E-03	-.83250E-03	0.865E-03	0.443E-01
221.38	-77.02	B05-706D 5000E	-.62500E-04	-.15000E-03	-.70500E-03	0.723E-03	0.482E-01
223.04	-73.55	B05-706G 5000E	-.90000E-04	-.23500E-03	-.85250E-03	0.889E-03	0.614E-01
257.34	-67.45	B05-801A 5000E	0.27500E-02	0.21000E-01	-.51000E-01	0.552E-01	0.386E+00
251.37	-68.84	B05-801B 5000E	0.40000E-02	0.16750E-01	-.44500E-01	0.477E-01	0.296E+00
252.62	-80.66	B05-802D 5000E	0.13250E-01	0.17500E-02	-.81250E-01	0.823E-01	0.558E+00
262.80	-80.55	B05-802E 5000E	0.12850E-01	0.41000E-02	-.81000E-01	0.821E-01	0.538E+00
253.36	-79.68	B05-802G 5000E	0.15500E-01	0.22500E-02	-.86000E-01	0.874E-01	0.692E+00
256.60	-80.35	B05-802H 5000E	0.14750E-01	0.30000E-02	-.88500E-01	0.898E-01	0.619E+00
266.52	-72.55	B05-803A 5000E	-.20000E-01	-.15750E-01	-.81000E-01	0.849E-01	0.865E+00
267.80	-73.80	B05-803B 5000E	-.18500E-01	-.15250E-01	-.82500E-01	0.859E-01	0.873E+00
258.84	-74.23	B05-803C 5000E	-.20125E-01	-.11875E-01	-.82750E-01	0.860E-01	0.878E+00
274.16	-63.66	B05-804D 5000E	-.49500E-02	0.12750E-02	-.10325E-01	0.115E-01	0.179E+00
273.60	-63.45	B05-804E 5000E	-.52250E-02	0.14000E-02	-.10825E-01	0.121E-01	0.178E+00
273.21	-64.67	B05-804G 5000E	-.44500E-02	0.12250E-02	-.97500E-02	0.108E-01	0.177E+00
273.21	-64.67	B05-804H 5000E	-.44500E-02	0.12250E-02	-.97500E-02	0.108E-01	0.177E+00
THE MEAN MOMENTS ARE:			-.811E-03	0.554E-03	-.402E-01	0.417E-01	0.370E+00

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THESE DATA ARE CALCULATED FORFLOW 5 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 258.75
MEAN INCLINATION FOR THE SITE IS -73.01

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 53.36
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 37.52

FISHER STATISTICS
NO. OF SAMPLES: 18 R = 17.8419
PRECISION FACTOR K = 107.51
CONE OF CONFIDENCE (ALPHA 95) = 3.35
DELTA P = 5.33 DELTA M = 5.98
THE STANDARD DIVERGENCE OF THE MEAN IS 1.90
THE FISHERIAN STANDARD DIVERGENCE IS 2.41

*******FLOW 6 BRIMSTONE PEAK NRM **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
304.14	-78.49	B06-805A	NRM	-.48000E-02	-.30750E-02	-.28000E-01	0.286E-01	0.100E+01
351.04	-73.54	B06-805B	NRM	-.12000E-02	-.65000E-02	-.22375E-01	0.233E-01	0.100E+01
339.25	-68.13	B06-805C	NRM	-.31500E-02	-.77000E-02	-.20725E-01	0.223E-01	0.100E+01
174.42	-87.89	B06-806D	NRM	0.20000E-03	0.55000E-03	-.15875E-01	0.159E-01	0.100E+01
292.71	-82.49	B06-806E	NRM	-.22250E-02	-.32500E-03	-.17050E-01	0.172E-01	0.100E+01
264.89	-77.78	B06-806G	NRM	-.43750E-02	0.15500E-02	-.21425E-01	0.219E-01	0.100E+01
301.20	-79.19	B06-806H	NRM	-.39750E-02	-.12000E-02	-.21750E-01	0.221E-01	0.100E+01
315.78	-70.16	B06-807A	NRM	-.16250E-02	-.61000E-02	-.17500E-01	0.186E-01	0.100E+01
321.94	-66.29	B06-807B	NRM	-.92500E-03	-.60000E-02	-.13825E-01	0.151E-01	0.100E+01
321.11	-65.17	B06-807C	NRM	-.92500E-03	-.54750E-02	-.12000E-01	0.132E-01	0.100E+01
253.09	-62.08	B06-808A	NRM	-.49500E-02	0.38000E-02	-.11775E-01	0.133E-01	0.100E+01
235.93	-74.36	B06-808B	NRM	-.32250E-02	0.45500E-02	-.19925E-01	0.207E-01	0.100E+01
250.24	-70.10	B06-808C	NRM	-.50000E-02	0.42500E-02	-.18125E-01	0.193E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.278E-02	-.167E-02	-.185E-01	0.194E-01	0.100E+01

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THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 297.13
MEAN INCLINATION FOR THE SITE IS -76.86

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 67.78
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 63.25

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.7004
PRECISION FACTOR K = 40.06
CONE OF CONFIDENCE (ALPHA 95) = 6.63
DELTA P = 11.48 DELTA M = 12.34
THE STANDARD DIVERGENCE OF THE MEAN IS 3.71
THE FISHERIAN STANDARD DIVERGENCE IS 5.05

*******FLOW 6 BRIMSTONE PEAK 300 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
264.75	-76.13	B06-805A	3000E	-.19000E-02	0.22500E-03	-.77500E-02	0.798E-02	0.279E+00
265.73	-74.19	B06-805B	3000E	-.22250E-02	0.22500E-03	-.79000E-02	0.821E-02	0.352E+00
266.31	-73.16	B06-805C	3000E	-.16500E-02	0.15000E-03	-.54750E-02	0.572E-02	0.256E+00
255.93	-77.18	B06-806D	3000E	-.14750E-02	0.80000E-03	-.73750E-02	0.756E-02	0.476E+00
257.00	-75.98	B06-806E	3000E	-.17125E-02	0.88750E-03	-.77250E-02	0.796E-02	0.463E+00
275.76	-78.27	B06-806G	3000E	-.19750E-02	0.30000E-03	-.96250E-02	0.983E-02	0.448E+00
259.54	-76.27	B06-806H	3000E	-.20500E-02	0.95000E-03	-.92500E-02	0.952E-02	0.430E+00
264.66	-75.28	B06-807A	3000E	-.18000E-02	-.80000E-03	-.75000E-02	0.775E-02	0.417E+00
264.91	-74.98	B06-807B	3000E	-.17625E-02	-.79250E-03	-.72000E-02	0.745E-02	0.494E+00
264.96	-75.02	B06-807C	3000E	-.17750E-02	-.80000E-03	-.72750E-02	0.753E-02	0.570E+00
245.60	-70.23	B06-808A	3000E	-.22750E-02	0.22750E-02	-.89500E-02	0.951E-02	0.714E+00
243.71	-70.06	B06-808B	3000E	-.22000E-02	0.23500E-02	-.88750E-02	0.944E-02	0.456E+00
244.38	-70.03	B06-808C	3000E	-.23000E-02	0.24000E-02	-.91500E-02	0.974E-02	0.505E+00
THE MEAN MOMENTS ARE:				-.193E-02	0.628E-03	-.800E-02	0.832E-02	0.451E+00

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 258.29
MEAN INCLINATION FOR THE SITE IS -74.59

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 55.59
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 35.34

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.9727
PRECISION FACTOR K = 440.05
CONE OF CONFIDENCE (ALPHA 95) = 1.98
DELTA P = 3.26 DELTA M = 3.59
THE STANDARD DIVERGENCE OF THE MEAN IS 1.12
THE FISHERIAN STANDARD DIVERGENCE IS 0.84

*******FLOW 6 BRIMSTONE PEAK 400 **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
266.81	-74.72	B06-805A	400OE	-.15250E-02	0.12500E-03	-.56000E-02	0.581E-02	0.203E+00
348.78	-80.09	B06-805B	400OE	-.17500E-03	-.77500E-03	-.45500E-02	0.462E-02	0.198E+00
268.46	-72.25	B06-805C	400OE	-.12225E-02	0.65000E-04	-.38250E-02	0.402E-02	0.180E+00
255.17	-76.93	B06-806D	400OE	-.11750E-02	0.65750E-03	-.58000E-02	0.595E-02	0.375E+00
255.30	-75.98	B06-806E	400OE	-.13250E-02	0.73750E-03	-.60750E-02	0.626E-02	0.364E+00
270.88	-61.01	B06-806G	400OE	-.30150E-02	0.72500E-03	-.55975E-02	0.640E-02	0.292E+00
260.10	-76.44	B06-806H	400OE	-.15500E-02	0.70000E-03	-.70500E-02	0.725E-02	0.328E+00
266.85	-75.08	B06-807A	400OE	-.13750E-02	-.67500E-03	-.57500E-02	0.595E-02	0.320E+00
265.34	-74.12	B06-807B	400OE	-.14225E-02	-.65250E-03	-.55000E-02	0.572E-02	0.379E+00
267.70	-75.44	B06-807C	400OE	-.13250E-02	-.67500E-03	-.57250E-02	0.591E-02	0.447E+00
242.63	-70.10	B06-808A	400OE	-.16000E-02	0.17750E-02	-.66000E-02	0.702E-02	0.527E+00
243.15	-69.57	B06-808B	400OE	-.16750E-02	0.18250E-02	-.66500E-02	0.710E-02	0.343E+00
246.01	-70.06	B06-808C	400OE	-.17500E-02	0.17250E-02	-.67750E-02	0.721E-02	0.374E+00
THE MEAN MOMENTS ARE:				-.147E-02	0.427E-03	-.581E-02	0.609E-02	0.333E+00

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.72
MEAN INCLINATION FOR THE SITE IS -74.19

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 55.72
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 38.51

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.8944
PRECISION FACTOR K = 113.67
CONE OF CONFIDENCE (ALPHA 95) = 3.90
DELTA P = 6.39 DELTA M = 7.06
THE STANDARD DIVERGENCE OF THE MEAN IS 2.20
THE FISHERIAN STANDARD DIVERGENCE IS 2.31

*******FLOW 6 BRIMSTONE PEAK 500 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
273.79	-71.78	B06-805A 5000E	-.12500E-02	-.50000E-04	-.38000E-02	0.400E-02	0.140E+00
269.09	-70.34	B06-805B 5000E	-.13650E-02	0.57500E-04	-.38250E-02	0.406E-02	0.174E+00
277.08	-69.52	B06-805C 5000E	-.10500E-02	-.10250E-03	-.28250E-02	0.302E-02	0.135E+00
260.01	-77.18	B06-806D 5000E	-.93750E-03	0.42500E-03	-.45250E-02	0.464E-02	0.292E+00
260.00	-76.25	B06-806E 5000E	-.10250E-02	0.46500E-03	-.46000E-02	0.474E-02	0.275E+00
257.04	-76.00	B06-806G 5000E	-.12125E-02	0.62750E-03	-.54775E-02	0.565E-02	0.258E+00
261.70	-76.18	B06-806H 5000E	-.12250E-02	0.51250E-03	-.54000E-02	0.556E-02	0.251E+00
267.01	-74.25	B06-807A 5000E	-.11375E-02	-.56250E-03	-.45000E-02	0.468E-02	0.251E+00
268.70	-74.46	B06-807B 5000E	-.10250E-02	-.54500E-03	-.41750E-02	0.433E-02	0.287E+00
269.59	-74.06	B06-807C 5000E	-.10875E-02	-.60000E-03	-.43500E-02	0.452E-02	0.342E+00
244.50	-70.26	B06-808A 5000E	-.12750E-02	0.13250E-02	-.51250E-02	0.544E-02	0.409E+00
245.05	-69.73	B06-808B 5000E	-.13000E-02	0.13250E-02	-.50250E-02	0.536E-02	0.259E+00
247.85	-70.78	B06-808C 5000E	-.13250E-02	0.12250E-02	-.51750E-02	0.548E-02	0.284E+00
THE MEAN MOMENTS ARE:			-.117E-02	0.316E-03	-.452E-02	0.473E-02	0.258E+00

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.48
MEAN INCLINATION FOR THE SITE IS -73.43

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 54.54
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 39.24

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.9658
PRECISION FACTOR K = 351.06
CONE OF CONFIDENCE (ALPHA 95) = 2.22
DELTA P = 3.56 DELTA M = 3.97
THE STANDARD DIVERGENCE OF THE MEAN IS 1.25
THE FISHERIAN STANDARD DIVERGENCE IS 0.99

*******FLOW 6 BRIMSTONE PEAK NRM **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
304.14	-78.49	B06-805A	NRM	-.48000E-02	-.30750E-02	-.28000E-01	0.286E-01	0.100E+01
351.04	-73.54	B06-805B	NRM	-.12000E-02	-.65000E-02	-.22375E-01	0.233E-01	0.100E+01
339.25	-68.13	B06-805C	NRM	-.31500E-02	-.77000E-02	-.20725E-01	0.223E-01	0.100E+01
174.42	-87.89	B06-806D	NRM	0.20000E-03	0.55000E-03	-.15875E-01	0.159E-01	0.100E+01
292.71	-82.49	B06-806E	NRM	-.22250E-02	-.32500E-03	-.17050E-01	0.172E-01	0.100E+01
264.89	-77.78	B06-806G	NRM	-.43750E-02	0.15500E-02	-.21425E-01	0.219E-01	0.100E+01
301.20	-79.19	B06-806H	NRM	-.39750E-02	-.12000E-02	-.21750E-01	0.221E-01	0.100E+01
315.78	-70.16	B06-807A	NRM	-.16250E-02	-.61000E-02	-.17500E-01	0.186E-01	0.100E+01
321.94	-66.29	B06-807B	NRM	-.92500E-03	-.60000E-02	-.13825E-01	0.151E-01	0.100E+01
321.11	-65.17	B06-807C	NRM	-.92500E-03	-.54750E-02	-.12000E-01	0.132E-01	0.100E+01
253.09	-62.08	B06-808A	NRM	-.49500E-02	0.38000E-02	-.11775E-01	0.133E-01	0.100E+01
235.93	-74.36	B06-808B	NRM	-.32250E-02	0.45500E-02	-.19925E-01	0.207E-01	0.100E+01
250.24	-70.10	B06-808C	NRM	-.50000E-02	0.42500E-02	-.18125E-01	0.193E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.278E-02	-.167E-02	-.185E-01	0.194E-01	0.100E+01

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 297.13
MEAN INCLINATION FOR THE SITE IS -76.86

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 67.78
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 63.25

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.7004
PRECISION FACTOR K = 40.06
CONE OF CONFIDENCE (ALPHA 95) = 6.63
DELTA P = 11.48 DELTA M = 12.34
THE STANDARD DIVERGENCE OF THE MEAN IS 3.71
THE FISHERIAN STANDARD DIVERGENCE IS 5.05

*******FLOW 6 BRIMSTONE PEAK 300 **********
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
264.75	-76.18	B06-805A	3000E	-.19000E-02	0.22500E-03	-.77500E-02	0.798E-02	0.279E+00
265.73	-74.19	B06-805B	3000E	-.22250E-02	0.22500E-03	-.79000E-02	0.821E-02	0.352E+00
266.31	-73.16	B06-805C	3000E	-.16500E-02	0.15000E-03	-.54750E-02	0.572E-02	0.256E+00
255.93	-77.18	B06-806D	3000E	-.14750E-02	0.80000E-03	-.73750E-02	0.756E-02	0.476E+00
257.00	-75.98	B06-806E	3000E	-.17125E-02	0.88750E-03	-.77250E-02	0.796E-02	0.463E+00
275.76	-78.27	B06-806G	3000E	-.19750E-02	0.30000E-03	-.96250E-02	0.983E-02	0.448E+00
259.54	-76.27	B06-806H	3000E	-.20500E-02	0.95000E-03	-.92500E-02	0.952E-02	0.430E+00
264.66	-75.28	B06-807A	3000E	-.18000E-02	-.80000E-03	-.75000E-02	0.775E-02	0.417E+00
264.91	-74.98	B06-807B	3000E	-.17625E-02	-.79250E-03	-.72000E-02	0.745E-02	0.494E+00
264.96	-75.02	B06-807C	3000E	-.17750E-02	-.80000E-03	-.72750E-02	0.753E-02	0.570E+00
245.60	-70.23	B06-808A	3000E	-.22750E-02	0.22750E-02	-.89500E-02	0.951E-02	0.714E+00
243.71	-70.06	B06-808B	3000E	-.22000E-02	0.23500E-02	-.88750E-02	0.944E-02	0.456E+00
244.38	-70.03	B06-808C	3000E	-.23000E-02	0.24000E-02	-.91500E-02	0.974E-02	0.505E+00
THE MEAN MOMENTS ARE:				-.193E-02	0.628E-03	-.800E-02	0.832E-02	0.451E+00

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 258.29
MEAN INCLINATION FOR THE SITE IS -74.59

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 55.59
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 35.34

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.9727
PRECISION FACTOR K = 440.05
CONE OF CONFIDENCE (ALPHA 95) = 1.98
DELTA P = 3.26 DELTA M = 3.59
THE STANDARD DIVERGENCE OF THE MEAN IS 1.12
THE FISHERIAN STANDARD DIVERGENCE IS 0.84

*******FLOW 6 BRIMSTONE PEAK 400 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
266.81	-74.72	B06-805A	4000E	-.15250E-02	0.12500E-03	-.56000E-02	0.581E-02	0.203E+00
348.78	-80.09	B06-805B	4000E	-.17500E-03	-.77500E-03	-.45500E-02	0.462E-02	0.198E+00
268.46	-72.25	B06-805C	4000E	-.12225E-02	0.65000E-04	-.38250E-02	0.402E-02	0.180E+00
255.17	-76.93	B06-806D	4000E	-.11750E-02	0.65750E-03	-.58000E-02	0.595E-02	0.375E+00
255.30	-75.98	B06-806E	4000E	-.13250E-02	0.73750E-03	-.60750E-02	0.626E-02	0.364E+00
270.88	-61.01	B06-806G	4000E	-.30150E-02	0.72500E-03	-.55975E-02	0.640E-02	0.292E+00
260.10	-76.44	B06-806H	4000E	-.15500E-02	0.70000E-03	-.70500E-02	0.725E-02	0.328E+00
266.85	-75.08	B06-807A	4000E	-.13750E-02	-.67500E-03	-.57500E-02	0.595E-02	0.320E+00
265.34	-74.12	B06-807B	4000E	-.14225E-02	-.65250E-03	-.55000E-02	0.572E-02	0.379E+00
267.70	-75.44	B06-807C	4000E	-.13250E-02	-.67500E-03	-.57250E-02	0.591E-02	0.447E+00
242.63	-70.10	B06-808A	4000E	-.16000E-02	0.17750E-02	-.66000E-02	0.702E-02	0.527E+00
243.15	-69.57	B06-808B	4000E	-.16750E-02	0.18250E-02	-.66500E-02	0.710E-02	0.343E+00
246.01	-70.06	B06-808C	4000E	-.17500E-02	0.17250E-02	-.67750E-02	0.721E-02	0.374E+00
THE MEAN MOMENTS ARE:				-.147E-02	0.427E-03	-.581E-02	0.609E-02	0.333E+00

****
THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.72
MEAN INCLINATION FOR THE SITE IS -74.19

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 55.72
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 38.51

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.8944
PRECISION FACTOR K = 113.67
CONE OF CONFIDENCE (ALPHA 95) = 3.90
DELTA P = 6.39 DELTA M = 7.06
THE STANDARD DIVERGENCE OF THE MEAN IS 2.20
THE FISHERIAN STANDARD DIVERGENCE IS 2.31

*******FLOW 6 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
273.79	-71.78	B06-805A	5000E	-.12500E-02	-.50000E-04	-.38000E-02	0.400E-02	0.140E+00
269.09	-70.34	B06-805B	5000E	-.13650E-02	0.57500E-04	-.38250E-02	0.406E-02	0.174E+00
277.08	-69.52	B06-805C	5000E	-.10500E-02	-.10250E-03	-.28250E-02	0.302E-02	0.135E+00
260.01	-77.18	B06-806D	5000E	-.93750E-03	0.42500E-03	-.45250E-02	0.464E-02	0.292E+00
260.00	-76.25	B06-806E	5000E	-.10250E-02	0.46500E-03	-.46000E-02	0.474E-02	0.275E+00
257.04	-76.00	B06-806G	5000E	-.12125E-02	0.62750E-03	-.54775E-02	0.565E-02	0.258E+00
261.70	-76.18	B06-806H	5000E	-.12250E-02	0.51250E-03	-.54000E-02	0.556E-02	0.251E+00
267.01	-74.25	B06-807A	5000E	-.11375E-02	-.56250E-03	-.45000E-02	0.468E-02	0.251E+00
268.70	-74.46	B06-807B	5000E	-.10250E-02	-.54500E-03	-.41750E-02	0.433E-02	0.287E+00
269.59	-74.06	B06-807C	5000E	-.10875E-02	-.60000E-03	-.43500E-02	0.452E-02	0.342E+00
244.50	-70.26	B06-808A	5000E	-.12750E-02	0.13250E-02	-.51250E-02	0.544E-02	0.409E+00
245.05	-69.73	B06-808B	5000E	-.13000E-02	0.13250E-02	-.50250E-02	0.536E-02	0.259E+00
247.85	-70.78	B06-808C	5000E	-.13250E-02	0.12250E-02	-.51750E-02	0.548E-02	0.284E+00
THE MEAN MOMENTS ARE:				-.117E-02	0.316E-03	-.452E-02	0.473E-02	0.258E+00

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THESE DATA ARE CALCULATED FORFLOW 6 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.48
MEAN INCLINATION FOR THE SITE IS -73.48

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 54.54
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 39.24

FISHER STATISTICS
NO. OF SAMPLES: 13 R = 12.9658
PRECISION FACTOR K = 351.06
CONE OF CONFIDENCE (ALPHA 95) = 2.22
DELTA P = 3.56 DELTA M = 3.97
THE STANDARD DIVERGENCE OF THE MEAN IS 1.25
THE FISHERIAN STANDARD DIVERGENCE IS 0.99

*******FLOW 11 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
312.05	-70.11	B11-901A	NRN	-.93750E-02	-.27500E-02	-.27000E-01	0.287E-01	0.100E+01
325.31	-78.34	B11-901B	NRN	-.45750E-02	-.26000E-02	-.25500E-01	0.260E-01	0.100E+01
273.00	-82.83	B11-901C	NRN	-.24500E-02	0.10250E-02	-.21125E-01	0.213E-01	0.100E+01
291.40	-78.76	B11-902D	NRM	-.70750E-02	-.47000E-02	-.42750E-01	0.436E-01	0.100E+01
279.69	-74.99	B11-902E	NRM	-.82750E-02	-.33250E-02	-.33250E-01	0.344E-01	0.100E+01
281.37	-74.82	B11-902G	NRM	-.10600E-01	-.46250E-02	-.42625E-01	0.442E-01	0.100E+01
287.20	-76.16	B11-902H	NRM	-.76750E-02	-.43250E-02	-.35750E-01	0.368E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.715E-02	-.304E-02	-.326E-01	0.336E-01	0.100E+01

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THESE DATA ARE CALCULATED FORFLOW 11 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 294.27
MEAN INCLINATION FOR THE SITE IS -77.14

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 67.48
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 59.95

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9695
PRECISION FACTOR K = 196.77
CONE OF CONFIDENCE (ALPHA 95) = 4.31
DELTA P = 7.51 DELTA M = 8.05
THE STANDARD DIVERGENCE OF THE MEAN IS 2.36
THE FISHERIAN STANDARD DIVERGENCE IS 1.53

*******FLOW 11 BRIMSTONE PEAK 300 **
SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
272.37	-81.55	B11-901A	3000E	-.12750E-02	0.55000E-03	-.93500E-02	0.945E-02	0.329E+00
280.93	-77.22	B11-901B	3000E	-.22750E-02	0.60000E-03	-.10375E-01	0.106E-01	0.409E+00
283.76	-71.17	B11-901C	3000E	-.29450E-02	0.62250E-03	-.88250E-02	0.932E-02	0.438E+00
274.54	-76.04	B11-902D	3000E	-.29750E-02	-.89500E-03	-.12500E-01	0.129E-01	0.296E+00
269.30	-74.65	B11-902E	3000E	-.28250E-02	-.57500E-03	-.10500E-01	0.109E-01	0.316E+00
271.68	-70.33	B11-902G	3000E	-.42500E-02	-.10500E-02	-.12250E-01	0.130E-01	0.295E+00
272.21	-75.49	B11-902H	3000E	-.27250E-02	-.70000E-03	-.10875E-01	0.112E-01	0.305E+00
THE MEAN MOMENTS ARE:				-.275E-02	-.207E-03	-.107E-01	0.111E-01	0.341E+00

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THESE DATA ARE CALCULATED FORFLOW 11 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 275.17
MEAN INCLINATION FOR THE SITE IS -75.27

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 60.27
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 47.75

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9851
PRECISION FACTOR K = 403.48
CONE OF CONFIDENCE (ALPHA 95) = 3.01
DELTA P = 5.04 DELTA M = 5.51
THE STANDARD DIVERGENCE OF THE MEAN IS 1.65
THE FISHERIAN STANDARD DIVERGENCE IS 0.89

*******FLOW 11 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
268.53	-73.03	B11-901A	4000E	-.19000E-02	0.97500E-03	-.70000E-02	0.732E-02	0.255E+00
283.99	-74.40	B11-901B	4000E	-.20500E-02	0.42500E-03	-.75000E-02	0.779E-02	0.299E+00
261.57	-72.70	B11-901C	4000E	-.17075E-02	0.11575E-02	-.66250E-02	0.694E-02	0.326E+00
270.93	-75.57	B11-902D	4000E	-.22300E-02	-.52000E-03	-.89000E-02	0.919E-02	0.211E+00
271.66	-75.38	B11-902E	4000E	-.19250E-02	-.47500E-03	-.76000E-02	0.785E-02	0.228E+00
275.56	-72.16	B11-902G	4000E	-.25750E-02	-.82500E-03	-.84000E-02	0.882E-02	0.200E+00
268.42	-75.60	B11-902H	4000E	-.20000E-02	-.37500E-03	-.79250E-02	0.818E-02	0.222E+00
THE MEAN MOMENTS ARE:				-.206E-02	0.518E-04	-.771E-02	0.801E-02	0.249E+00

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THESE DATA ARE CALCULATED FORFLOW 11 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 271.45
MEAN INCLINATION FOR THE SITE IS -74.22

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 57.90
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 46.31

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9946
PRECISION FACTOR K = 1120.67
CONE OF CONFIDENCE (ALPHA 95) = 1.80
DELTA P = 2.95 DELTA M = 3.26
THE STANDARD DIVERGENCE OF THE MEAN IS 0.99
THE FISHERIAN STANDARD DIVERGENCE IS 0.42

*******FLOW 11 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
282.71	-75.41	B11-901A	5000E	-.13000E-02	0.30000E-03	-.51250E-02	0.530E-02	0.184E+00
287.56	-74.76	B11-901B	5000E	-.15375E-02	0.22000E-03	-.57000E-02	0.591E-02	0.227E+00
285.95	-74.40	B11-901C	5000E	-.13825E-02	0.23750E-03	-.50250E-02	0.522E-02	0.245E+00
266.31	-74.61	B11-902D	5000E	-.18375E-02	-.27500E-03	-.67500E-02	0.700E-02	0.161E+00
266.89	-72.66	B11-902E	5000E	-.16875E-02	-.27000E-03	-.54750E-02	0.574E-02	0.167E+00
272.87	-73.29	B11-902G	5000E	-.19500E-02	-.52500E-03	-.67250E-02	0.702E-02	0.159E+00
266.60	-69.96	B11-902H	5000E	-.21000E-02	-.32500E-03	-.58250E-02	0.620E-02	0.168E+00
THE MEAN MOMENTS ARE:				-.168E-02	-.911E-04	-.580E-02	0.605E-02	0.187E+00

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THESE DATA ARE CALCULATED FORFLOW 11 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 274.97
MEAN INCLINATION FOR THE SITE IS -73.77

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 58.05
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 49.88

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9903
PRECISION FACTOR K = 618.81
CONE OF CONFIDENCE (ALPHA 95) = 2.43
DELTA P = 3.93 DELTA M = 4.37
THE STANDARD DIVERGENCE OF THE MEAN IS 1.33
THE FISHERIAN STANDARD DIVERGENCE IS 0.65

*******FLOW 12 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
285.31	-62.44	B12-903D	NRM	-.16250E-02	-.37750E-02	-.78750E-02	0.888E-02	0.100E+01
259.62	-71.77	B12-903E	NRM	-.30750E-02	-.26750E-02	-.12375E-01	0.130E-01	0.100E+01
281.53	-73.75	B12-903G	NRM	-.17250E-02	-.33750E-02	-.13000E-01	0.135E-01	0.100E+01
279.71	-71.46	B12-904D	NRM	-.24000E-02	-.16750E-02	-.87250E-02	0.920E-02	0.100E+01
275.25	-60.46	B12-904E	NRM	-.37000E-02	-.21750E-02	-.75750E-02	0.871E-02	0.100E+01
279.93	-67.38	B12-904G	NRM	-.27000E-02	-.19000E-02	-.79250E-02	0.859E-02	0.100E+01
281.87	-67.62	B12-904H	NRM	-.33750E-02	-.25500E-02	-.10275E-01	0.111E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.266E-02	-.259E-02	-.968E-02	0.104E-01	0.100E+01

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THESE DATA ARE CALCULATED FORFLOW 12 BRIMSTONE PEAK NRM
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 278.04
MEAN INCLINATION FOR THE SITE IS -68.01

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 50.88
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 58.94

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9693
PRECISION FACTOR K = 195.51
CONE OF CONFIDENCE (ALPHA 95) = 4.33
DELTA P = 6.09 DELTA M = 7.26
THE STANDARD DIVERGENCE OF THE MEAN IS 2.37
THE FISHERIAN STANDARD DIVERGENCE IS 1.54

*******FLOW 12 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
258.61	-77.09	B12-903E 300OE	-.14000E-02	-.11750E-02	-.79750E-02	0.818E-02	0.628E+00
263.17	-76.77	B12-903D 300OE	-.16750E-02	-.16500E-02	-.10000E-01	0.103E-01	0.100E+01
266.22	-77.24	B12-903G 300OE	-.13050E-02	-.14300E-02	-.85500E-02	0.877E-02	0.647E+00
265.72	-70.36	B12-904D 300OE	-.85000E-03	-.32500E-03	-.25500E-02	0.271E-02	0.294E+00
265.49	-70.43	B12-904E 300OE	-.10725E-02	-.40500E-03	-.32250E-02	0.342E-02	0.393E+00
267.44	-70.29	B12-904G 300OE	-.90500E-03	-.37750E-03	-.27375E-02	0.291E-02	0.339E+00
268.61	-68.70	B12-904H 300OE	-.12125E-02	-.53500E-03	-.34000E-02	0.365E-02	0.328E+00
THE MEAN MOMENTS ARE:			-.120E-02	-.842E-03	-.549E-02	0.570E-02	0.519E+00

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THESE DATA ARE CALCULATED FORFLOW 12 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 265.47
MEAN INCLINATION FOR THE SITE IS -73.00

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 54.80
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 42.97

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9858
PRECISION FACTOR K = 422.78
CONE OF CONFIDENCE (ALPHA 95) = 2.94
DELTA P = 4.68 DELTA M = 5.24
THE STANDARD DIVERGENCE OF THE MEAN IS 1.61
THE FISHERIAN STANDARD DIVERGENCE IS 0.86

*******FLOW 12 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
258.49	-76.86	B12-903D 400OE	-.16750E-02	-.14000E-02	-.93500E-02	0.960E-02	0.108E+01
260.25	-77.64	B12-903E 400OE	-.11750E-02	-.10450E-02	-.71750E-02	0.735E-02	0.564E+00
268.44	-77.43	B12-903G 400OE	-.11075E-02	-.13125E-02	-.77000E-02	0.789E-02	0.583E+00
258.49	-58.78	B12-904D 400OE	-.68750E-03	-.16750E-03	-.11675E-02	0.137E-02	0.148E+00
261.99	-70.20	B12-904E 400OE	-.97000E-03	-.30000E-03	-.28200E-02	0.300E-02	0.344E+00
268.68	-69.71	B12-904G 400OE	-.76250E-03	-.33750E-03	-.22550E-02	0.240E-02	0.280E+00
268.99	-68.12	B12-904H 400OE	-.10350E-02	-.46500E-03	-.28250E-02	0.304E-02	0.274E+00
THE MEAN MOMENTS ARE:			-.106E-02	-.718E-03	-.476E-02	0.495E-02	0.468E+00

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THESE DATA ARE CALCULATED FORFLOW 12 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 263.49
MEAN INCLINATION FOR THE SITE IS -71.31

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 51.95
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 43.13

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9553
PRECISION FACTOR K = 134.09
CONE OF CONFIDENCE (ALPHA 95) = 5.23
DELTA P = 8.00 DELTA M = 9.15
THE STANDARD DIVERGENCE OF THE MEAN IS 2.86
THE FISHERIAN STANDARD DIVERGENCE IS 2.04

*******FLOW 12 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
264.11	-76.92	B12-903D 5000E	-.13875E-02	-.14125E-02	-.85250E-02	0.875E-02	0.985E+00
260.62	-75.87	B12-903E 5000E	-.12625E-02	-.11375E-02	-.67500E-02	0.696E-02	0.534E+00
265.54	-77.42	B12-903G 5000E	-.10700E-02	-.11450E-02	-.70250E-02	0.720E-02	0.532E+00
267.39	-70.05	B12-904D 5000E	-.59500E-03	-.24750E-03	-.17750E-02	0.189E-02	0.205E+00
265.93	-67.41	B12-904E 5000E	-.89250E-03	-.34500E-03	-.23000E-02	0.249E-02	0.286E+00
268.99	-69.02	B12-904G 5000E	-.64000E-03	-.28750E-03	-.18300E-02	0.196E-02	0.228E+00
267.92	-66.94	B12-904H 5000E	-.90750E-03	-.38750E-03	-.23175E-02	0.252E-02	0.227E+00
THE MEAN MOMENTS ARE:			-.965E-03	-.709E-03	-.436E-02	0.454E-02	0.428E+00

****

THESE DATA ARE CALCULATED FORFLOW 12 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 266.20
MEAN INCLINATION FOR THE SITE IS -71.96

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 53.47
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 44.73

FISHER STATISTICS
NO. OF SAMPLES: 7 R = 6.9799
PRECISION FACTOR K = 298.39
CONE OF CONFIDENCE (ALPHA 95) = 3.50
DELTA P = 5.44 DELTA M = 6.17
THE STANDARD DIVERGENCE OF THE MEAN IS 1.92
THE FISHERIAN STANDARD DIVERGENCE IS 1.12

*******FLOW 14 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
280.01	-74.09	B14-905D	NRM	-.28000E-02	-.20500E-02	-.12175E-01	0.127E-01	0.100E+01
276.15	-61.80	B14-905G	NRM	-.55250E-02	-.35000E-02	-.12200E-01	0.138E-01	0.100E+01
308.54	-54.84	B14-906D	NRM	-.36000E-02	-.53250E-02	-.91250E-02	0.112E-01	0.100E+01
303.31	-72.80	B14-906E	NRM	-.22500E-02	-.27500E-02	-.11475E-01	0.120E-01	0.100E+01
313.77	-75.08	B14-906G	NRM	-.15000E-02	-.27250E-02	-.11675E-01	0.121E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.313E-02	-.327E-02	-.113E-01	0.124E-01	0.100E+01

****

THESE DATA ARE CALCULATED FORFLOW 14 BRIMSTONE PEAK NRM

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 296.17

MEAN INCLINATION FOR THE SITE IS -68.46

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 55.89

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 75.99

FISHER STATISTICS

NO. OF SAMPLES: 5 R = 4.9261

PRECISION FACTOR K = 54.16

CONE OF CONFIDENCE (ALPHA 95) = 10.49

DELTA P = 14.94 DELTA M = 17.70

THE STANDARD DIVERGENCE OF THE MEAN IS 5.51

THE FISHERIAN STANDARD DIVERGENCE IS 4.03

*******FLOW 14 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
271.14	-71.54	B14-905D	4000E	-.14750E-02	-.76250E-03	-.49750E-02	0.524E-02	0.414E+00
266.24	-70.44	B14-905G	4000E	-.19125E-02	-.79000E-03	-.58250E-02	0.618E-02	0.447E+00
284.32	-73.69	B14-906D	4000E	-.13750E-02	-.85000E-03	-.55250E-02	0.576E-02	0.516E+00
256.35	-76.44	B14-906E	4000E	-.14500E-02	-.95000E-04	-.60250E-02	0.620E-02	0.516E+00
285.46	-75.34	B14-906G	4000E	-.13625E-02	-.88000E-03	-.62000E-02	0.641E-02	0.530E+00
THE MEAN MOMENTS ARE:				-.151E-02	-.675E-03	-.571E-02	0.596E-02	0.485E+00

****

THESE DATA ARE CALCULATED FORFLOW 14 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 272.71
MEAN INCLINATION FOR THE SITE IS -73.75

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 57.51
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 48.00

FISHER STATISTICS
NO. OF SAMPLES: 5 R = 4.9895
PRECISION FACTOR K = 379.64
CONE OF CONFIDENCE (ALPHA 95) = 3.93
DELTA P = 6.37 DELTA M = 7.08
THE STANDARD DIVERGENCE OF THE MEAN IS 2.08
THE FISHERIAN STANDARD DIVERGENCE IS 0.93

*******FLOW 14 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
270.36	-70.59	B14-905D 5000E	-.13000E-02	-.65000E-03	-.41250E-02	0.437E-02	0.345E+00
280.96	-70.24	B14-905G 5000E	-.13525E-02	-.10250E-02	-.47250E-02	0.502E-02	0.363E+00
279.43	-74.94	B14-906D 5000E	-.10625E-02	-.53750E-03	-.44250E-02	0.458E-02	0.411E+00
280.30	-74.46	B14-906E 5000E	-.12000E-02	-.63000E-03	-.48750E-02	0.506E-02	0.421E+00
282.37	-73.68	B14-906G 5000E	-.13025E-02	-.74500E-03	-.51250E-02	0.534E-02	0.442E+00
THE MEAN MOMENTS ARE:			-.124E-02	-.717E-03	-.465E-02	0.488E-02	0.396E+00

****

THESE DATA ARE CALCULATED FORFLOW 14 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 278.46
MEAN INCLINATION FOR THE SITE IS -72.83

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 57.54
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 54.16

FISHER STATISTICS
NO. OF SAMPLES: 5 R = 4.9957
PRECISION FACTOR K = 931.24
CONE OF CONFIDENCE (ALPHA 95) = 2.51
DELTA P = 3.98 DELTA M = 4.47
THE STANDARD DIVERGENCE OF THE MEAN IS 1.33
THE FISHERIAN STANDARD DIVERGENCE IS 0.48

*******FLOW 15 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
261.90	-68.44	B15-907D	NRM	-.26125E-01	-.36250E-02	-.66750E-01	0.718E-01	0.100E+01
290.63	-62.66	B15-907G	NRM	-.39000E-01	-.29000E-01	-.94000E-01	0.106E+00	0.100E+01
267.75	-67.25	B15-907H	NRM	-.35750E-01	-.87500E-02	-.87750E-01	0.952E-01	0.100E+01
267.42	-68.63	B15-908A	NRM	-.28675E-01	0.21750E-01	-.92000E-01	0.988E-01	0.100E+01
267.40	-68.39	B15-908B	NRM	-.28000E-01	0.21250E-01	-.88750E-01	0.955E-01	0.100E+01
271.32	-65.76	B15-908C	NRM	-.32375E-01	0.21250E-01	-.86000E-01	0.943E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.317E-01	0.381E-02	-.859E-01	0.936E-01	0.100E+01

****

THESE DATA ARE CALCULATED FORFLOW 15 BRIMSTONE PEAK NRM

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 271.76

MEAN INCLINATION FOR THE SITE IS -67.15

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 48.26

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 53.92

FISHER STATISTICS

NO. OF SAMPLES: 6 R = 5.9829

PRECISION FACTOR K = 292.70

CONE OF CONFIDENCE (ALPHA 95) = 3.92

DELTA P = 5.40 DELTA M = 6.51

THE STANDARD DIVERGENCE OF THE MEAN IS 2.12

THE FISHERIAN STANDARD DIVERGENCE IS 1.14

*******FLOW 15 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
269.37	-67.71	B15-907D	3000E	-.62750E-02	-.17250E-02	-.15875E-01	0.172E-01	0.239E+00
265.68	-66.28	B15-907G	3000E	-.13425E-01	-.27750E-02	-.31200E-01	0.341E-01	0.322E+00
268.93	-67.24	B15-907H	3000E	-.11250E-01	-.30000E-02	-.27750E-01	0.301E-01	0.316E+00
265.14	-68.26	B15-908A	3000E	-.22625E-01	0.18625E-01	-.73500E-01	0.791E-01	0.801E+00
266.31	-67.62	B15-908B	3000E	-.23750E-01	0.18750E-01	-.73500E-01	0.795E-01	0.833E+00
270.53	-66.40	B15-908C	3000E	-.25875E-01	0.17500E-01	-.71500E-01	0.780E-01	0.827E+00
THE MEAN MOMENTS ARE:				-.172E-01	0.790E-02	-.489E-01	0.530E-01	0.556E+00

****

THESE DATA ARE CALCULATED FORFLOW 15 BRIMSTONE PEAK 300

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 267.68

MEAN INCLINATION FOR THE SITE IS -67.27

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 47.45

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 50.19

FISHER STATISTICS

NO. OF SAMPLES: 6 R = 5.9990

PRECISION FACTOR K = 4832.14

CONE OF CONFIDENCE (ALPHA 95) = 0.96

DELTA P = 1.33 DELTA M = 1.60

THE STANDARD DIVERGENCE OF THE MEAN IS 0.52

THE FISHERIAN STANDARD DIVERGENCE IS 0.14

*******FLOW 15 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
266.70	-67.21	B15-907D	4000E	-.43250E-02	-.97500E-03	-.10550E-01	0.114E-01	0.159E+00
267.85	-66.68	B15-907G	4000E	-.91250E-02	-.22500E-02	-.21800E-01	0.237E-01	0.224E+00
267.86	-67.48	B15-907H	4000E	-.76000E-02	-.18750E-02	-.18875E-01	0.204E-01	0.215E+00
266.42	-68.47	B15-908A	4000E	-.19075E-01	0.15000E-01	-.61500E-01	0.661E-01	0.669E+00
258.37	-69.77	B15-908B	4000E	-.16000E-01	0.16700E-01	-.62750E-01	0.669E-01	0.701E+00
270.10	-66.35	B15-908C	4000E	-.22375E-01	0.15375E-01	-.62000E-01	0.677E-01	0.718E+00
THE MEAN MOMENTS ARE:				-.131E-01	0.700E-02	-.396E-01	0.427E-01	0.448E+00

****

THESE DATA ARE CALCULATED FORFLOW 15 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 266.39
MEAN INCLINATION FOR THE SITE IS -67.70

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 47.71
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 48.73

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.9971
PRECISION FACTOR K = 1709.45
CONE OF CONFIDENCE (ALPHA 95) = 1.62
DELTA P = 2.26 DELTA M = 2.71
THE STANDARD DIVERGENCE OF THE MEAN IS 0.88
THE FISHERIAN STANDARD DIVERGENCE IS 0.30

*******FLOW 15 BRIMSTONE PEAK 500 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
265.12	-67.86	B15-907D 5000E	-.29250E-02	-.57500E-03	-.73250E-02	0.791E-02	0.110E+00
266.41	-66.62	B15-907G 5000E	-.62500E-02	-.13750E-02	-.14800E-01	0.161E-01	0.152E+00
267.97	-68.08	B15-907H 5000E	-.51250E-02	-.12750E-02	-.13125E-01	0.141E-01	0.149E+00
265.83	-68.16	B15-908A 5000E	-.15625E-01	0.12550E-01	-.50000E-01	0.539E-01	0.545E+00
266.25	-67.38	B15-908B 5000E	-.16750E-01	0.13250E-01	-.51250E-01	0.555E-01	0.582E+00
271.00	-66.22	B15-908C 5000E	-.18625E-01	0.12375E-01	-.50750E-01	0.555E-01	0.588E+00
THE MEAN MOMENTS ARE:			-.109E-01	0.582E-02	-.312E-01	0.338E-01	0.354E+00

****

THESE DATA ARE CALCULATED FORFLOW 15 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 267.13
MEAN INCLINATION FOR THE SITE IS -67.40

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 47.50
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 49.61

FISHER STATISTICS
NO. OF SAMPLES: 6 R = 5.9990
PRECISION FACTOR K = 4890.75
CONE OF CONFIDENCE (ALPHA 95) = 0.96
DELTA P = 1.33 DELTA M = 1.60
THE STANDARD DIVERGENCE OF THE MEAN IS 0.52
THE FISHERIAN STANDARD DIVERGENCE IS 0.14

*******FLOW 16 BRIMSTONE PEAK NRM **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID		X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
263.14	-68.59	B16-909A	NRM	-.43250E-02	0.18500E-02	-.12000E-01	0.129E-01	0.100E+01
261.98	-69.70	B16-909B	NRM	-.44250E-02	0.20000E-02	-.13125E-01	0.140E-01	0.100E+01
THE MEAN MOMENTS ARE:				-.437E-02	0.192E-02	-.126E-01	0.134E-01	0.100E+01

****

THESE DATA ARE CALCULATED FORFLOW 16 BRIMSTONE PEAK NRM

LATITUDE OF SITE = -75.82

LONGITUDE OF SITE = 158.55

MEAN DECLINATION FOR THE SITE IS 262.57

MEAN INCLINATION FOR THE SITE IS -69.15

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE

LATITUDE OF THE GEOMAGNETIC POLE: 48.77

LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 44.29

FISHER STATISTICS

NO. OF SAMPLES: 2 R = 1.9999

PRECISION FACTOR K = 9446.63

CONE OF CONFIDENCE (ALPHA 95) = 2.57

DELTA P = 3.72 DELTA M = 4.37

THE STANDARD DIVERGENCE OF THE MEAN IS 0.83

THE FISHERIAN STANDARD DIVERGENCE IS 0.08

*******FLOW 16 BRIMSTONE PEAK 300 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
262.22	-68.40	B16-909A 3000E	-.35250E-02	0.15750E-02	-.97500E-02	0.105E-01	0.814E+00
261.74	-69.37	B16-909B 3000E	-.37750E-02	0.17250E-02	-.11025E-01	0.118E-01	0.842E+00
THE MEAN MOMENTS ARE:			-.365E-02	0.165E-02	-.104E-01	0.111E-01	0.828E+00

****

THESE DATA ARE CALCULATED FORFLOW 16 BRIMSTONE PEAK 300
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.99
MEAN INCLINATION FOR THE SITE IS -68.88

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 48.28
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 44.00

FISHER STATISTICS
NO. OF SAMPLES: 2 R = 1.9999
PRECISION FACTOR K = 13273.11
CONE OF CONFIDENCE (ALPHA 95) = 2.17
DELTA P = 3.12 DELTA M = 3.68
THE STANDARD DIVERGENCE OF THE MEAN IS 0.70
THE FISHERIAN STANDARD DIVERGENCE IS 0.07

*******FLOW 16 BRIMSTONE PEAK 400 **********

SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
260.56	-69.80	B16-909A 4000E	-.28000E-02	0.13500E-02	-.84500E-02	0.900E-02	0.699E+00
262.30	-69.61	B16-909B 4000E	-.32000E-02	0.14250E-02	-.94250E-02	0.101E-01	0.718E+00
THE MEAN MOMENTS ARE:			-.300E-02	0.139E-02	-.894E-02	0.953E-02	0.709E+00

****

THESE DATA ARE CALCULATED FORFLOW 16 BRIMSTONE PEAK 400
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.43
MEAN INCLINATION FOR THE SITE IS -69.71

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 49.28
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 42.86

FISHER STATISTICS
NO. OF SAMPLES: 2 R = 2.0000
PRECISION FACTOR K = 31775.03
CONE OF CONFIDENCE (ALPHA 95) = 1.40
DELTA P = 2.06 DELTA M = 2.40
THE STANDARD DIVERGENCE OF THE MEAN IS 0.45
THE FISHERIAN STANDARD DIVERGENCE IS 0.03

*******FLOW 16 BRIMSTONE PEAK 500   **
 SAMPLE MOMENTS REDUCED TO GEOGRAPHIC COORDINATES

DEC	INC	SPECIMEN ID	X	Y	Z	TOTAL MOMENT	NORMALIZED INTENSITY
261.56	-68.70	B16-909A 5000E	-.25500E-02	0.11750E-02	-.72000E-02	0.773E-02	0.600E+00
261.69	-69.98	B16-909B 5000E	-.26750E-02	0.12250E-02	-.80750E-02	0.859E-02	0.614E+00
THE MEAN MOMENTS ARE:			-.261E-02	0.120E-02	-.764E-02	0.816E-02	0.607E+00

****
THESE DATA ARE CALCULATED FORFLOW 16 BRIMSTONE PEAK 500
LATITUDE OF SITE = -75.82
LONGITUDE OF SITE = 158.55
MEAN DECLINATION FOR THE SITE IS 261.63
MEAN INCLINATION FOR THE SITE IS -69.34

LOCATION OF THE VIRTUAL GEOMAGNETIC POLE
LATITUDE OF THE GEOMAGNETIC POLE: 48.81
LONGITUDE OF THE GEOMAGETIC POLE (+ = E. LONG.; - = W. LONG.): 43.33

FISHER STATISTICS
NO. OF SAMPLES: 2 R = 1.9999
PRECISION FACTOR K = 7884.03
CONE OF CONFIDENCE (ALPHA 95) = 2.81
DELTA P = 4.10 DELTA M = 4.80
THE STANDARD DIVERGENCE OF THE MEAN IS 0.91
THE FISHERIAN STANDARD DIVERGENCE IS 0.10

APPENDIX II:

BRIDEN STABILITY INDICES

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B01-601D	0.63	B01-601D	0.85	B01-601D	0.87
B01-601E	0.69	B01-601E	0.85	B01-601E	0.85
B01-601G	0.68	B01-601G	0.84	B01-601G	0.85
B01-601H	0.74	B01-601H	0.85	B01-601H	0.85
B01-602D	0.65	B01-602D	0.76	B01-602D	0.80
B01-602E	0.65	B01-602E	0.76	B01-602E	0.79
B01-602G	0.65	B01-602G	0.76	B01-602G	0.80
B01-602H	0.71	B01-602H	0.77	B01-602H	0.98
MEAN	0.68		0.80		0.85

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B02-603A	0.72	B02-603A	0.77	B02-603A	0.77
B02-603B	0.96	B02-603B	0.65	B02-603B	0.69
B02-603C	0.69	B02-603C	0.71	B02-603C	0.62
B02-604D	0.70	B02-604D	0.76	B0I-604D	0.50
B02-604C	0.85	B02-604E	0.70	B02-604E	0.62
B02-604G	0.75	B02-604G	0.73	B02-604G	0.62
B02-604H	0.81	B02-604H	0.72	B02-604H	0.64
MEAN	0.78		0.72		0.63

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B03-605A	0.28	B03-605A	0.62	B03-605A	0.62
B03-605B	0.27	B03-605B	0.32	B03-605B	0.78
B03-606D	0.38	B03-606D	0.77	B03-606D	0.45
B03-606E	0.51	B03-606E	0.35	B03-606E	0.86
B03-606G	0.13	B03-606G	0.50	B03-606G	0.75
B03-606H	0.13	B03-606H	0.50	B03-606H	0.75
MEAN	0.28		0.51		0.70

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B04-701D	0.32	B04-701D	0.67	B04-701D	0.70
B04-701E	0.34	B04-701E	0.68	B04-701E	0.70
B04-701G	0.36	B04-701G	0.73	B04-701G	0.67
B04-702D	0.41	B04-702D	0.70	B04-702D	0.71
B04-702E	0.44	B04-702E	0.71	B04-702E	0.71
B04-702G	0.42	B04-702G	0.70	B04-702G	0.70
B04-702H	0.41	B04-702H	0.72	B04-702H	0.74
B04-703D	0.08	B04-703D	0.96	B04-703D	0.82
B04-703E	0.71	B04-703E	0.96	B04-703E	0.82
B04-703F	0.83	B04-703F	0.88	B04-703F	0.89
B04-703G	0.86	B04-703G	0.88	B04-703G	0.90
B04-703H	0.92	B04-703H	0.89	B04-703H	0.87
B04-704D	0.37	B04-704D	0.92	B04-704D	0.81
B04-704E	0.38	B04-704E	0.77	B04-704E	0.82
B04-704G	0.43	B04-704G	0.80	B04-704G	0.83
B04-704H	0.42	B04-704H	0.63	B04-704H	1.00
MEAN	0.48		0.79		0.79

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B05-705D	0.14	B05-705D	0.46	B05-705D	0.64
B05-705E	0.15	B05-705E	0.47	B05-705E	0.63
B05-705G	0.15	B05-705G	0.50	B05-705G	0.59
B05-706D	0.12	B05-706D	0.54	B05-706D	0.73
B05-706G	0.15	B05-706G	0.58	B05-706G	0.70
B05-801A	0.64	B05-801A	0.76	B05-801A	0.79
B05-801B	0.47	B05-801B	0.80	B05-801B	0.79
B05-802D	0.83	B05-802D	0.84	B05-802D	0.80
B05-802E	0.85	B05-802E	0.79	B05-802E	0.80
B05-802G	0.99	B05-802G	0.84	B05-802G	0.83
B05-802H	0.87	B05-802H	0.86	D05-802H	0.83
B05-803A	0.98	B05-803A	0.97	B05-803A	0.91
B05-803B	0.97	B05-803B	0.97	B05-803B	0.92
B05-803C	0.96	B05-803C	0.99	B05-803C	0.92
B05-804D	0.39	B05-804D	0.67	B05-804D	0.69
B05-804E	0.39	B05-804E	0.66	B05-804E	0.70
B05-804G	0.38	B05-804G	0.66	B05-804G	0.70
B05-804H	0.38	B05-804H	0.66	B05-804H	0.70
MEAN	0.54		0.72		0.76

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B06-805A	0.28	B06-805A	0.73	B06-805A	0.69
B06-805B	0.35	B06-805B	0.56	B06-805B	0.88
B06-805C	0.26	B06-805C	0.70	B06-805C	0.75
B06-806D	0.48	B06-806D	0.79	B06-806D	0.78
B06-806E	0.46	B06-806E	0.79	B06-806E	0.76
B06-806G	0.45	B06-806G	0.65	B06-806G	0.88
B06-806H	0.43	B06-806H	0.76	B06-806H	0.77
B06-807A	0.42	B06-807A	0.77	B06-807A	0.79
B06-807B	0.49	B06-807B	0.77	B06-807B	0.76
B06-807C	0.57	B06-807C	0.79	B06-807C	0.76
B06-808A	0.71	B06-808A	0.74	B06-808A	0.78
B06-808B	0.46	B06-808B	0.75	B06-808B	0.75
B06-808C	0.51	B06-808C	0.74	B06-808C	0.76
MEAN	0.45		0.73		0.78

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B11-901A	0.33	B11-901A	0.77	B11-901A	0.72
B11-901B	0.41	B11-901B	0.73	B11-901B	0.76
B11-901C	0.44	B11-901C	0.74	B11-901C	0.75
B11-902D	0.30	B11-902D	0.71	B11-902D	0.76
B11-902E	0.32	B11-902E	0.72	B11-902E	0.73
B11-902G	0.29	B11-902G	0.68	B11-902G	0.80
B11-902H	0.31	B11-902H	0.73	B11-902H	0.76
MEAN	0.34		0.73		0.75

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B12-903E	0.63	B12-903D	0.93	B12-903D	0.91
B12-903D	0.84	B12-903E	0.90	B12-903E	0.95
B12-903G	0.65	B12-903G	0.90	B12-903G	0.91
B12-904D	0.29	B12-904D	0.50	B12-904D	0.62
B12-904E	0.39	B12-904E	0.88	B12-904E	0.83
B12-904G	0.34	B12-904G	0.83	B12-904G	0.82
B12-904H	0.33	B12-904H	0.83	B12-904H	0.83
MEAN	0.50		0.82		0.84

SAMPLE	NRM-400	SAMPLE	400-500
B14-905D	0.41	B14-905D	0.83
B14-905G	0.45	B14-905G	0.81
B14-906D	0.52	B14-906D	0.80
B14-902E	0.52	B14-906E	0.82
B14-906G	0.53	B14 906G	0.83
MEAN	0.48		0.82

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B15-907D	0.24	B15-907D	0.67	B15-907D	0.69
B15-907G	0.32	B15-907G	0.70	B15-907G	0.68
B15-907H	0.32	B15-907H	0.68	B15-907H	0.69
B15-908A	0.80	B15-908A	0.84	B15-908A	0.81
B15-908B	0.83	B15-908B	0.84	B15-908B	0.83
B15-908C	0.83	B15-908C	0.87	B15-908C	0.82
MEAN	0.56		0.76		0.75

SAMPLE	NRM-300	SAMPLE	300-400	SAMPLE	400-500
B16-909A	0.81	B16-909A	0.86	B16-909A	0.86
B16-909B	0.84	B16 909B	0.85	B16-909B	0.85
MEAN	0.83		0.86		0.86